



# **SELF STUDY REPORT**

**FOR**

**1<sup>st</sup> CYCLE OF ACCREDITATION**

**BASELIOS MATHEWS II COLLEGE OF ENGINEERING**

LAKE VIEW SASTHAMCOTTA, KOLLAM ,69052

690520

bmce.ac.in

Submitted To

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**(Draft)**

# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

Baselios Mathews II College of Engineering (BMCE) Sasthamcotta, Kollam, (Kerala) is privileged to present this Self Study Report (SSR) to the National Assessment and Accreditation Council (NAAC), Bengaluru. The college started during the academic year 2002-2003 and is approved by All India Council for Technical Education (AICTE)-New Delhi, Government of Kerala and affiliated to APJ Abdul Kalam Technological University. The college acquired ISO certification (ISO 9001-2015) in the year 2018. The institution is established by late H H Moran Mar Baselios Marthoma Mathews II, the sixth Catholicos of the East and the Malankara Metropolitan of Malankara Orthodox Church. He was also the first Chairman of the institution. This renowned college is managed by Dr. C T Eapen Trust under Malankara Orthodox Syrian Church. The governing body of the trust comprises of H H Baselios Marthoma PAULOSE II (Chairman), H G Zachariah Mar Antonios Metropolitan(Manager), Rev. Fr. Thomas Varghese(Administrator) and Dr. F. V Albin (Director). BMC is committed to promote academic excellence and competence in students, especially in the fast-growing global domain of Engineering and Technology. The quality policy is to offer value added professional education, promote intensive and innovative research programs with an emphasis on continuous improvement on all our services as per ISO 9001:2015 requirement. The institute runs six undergraduate courses that include Civil Engineering, Mechanical Engineering, Electrical & Electronics Engineering, Electronics & Communication Engineering, Applied Electronics & Instrumentation Engineering and Computer Science & Engineering and one post graduate program in Computer Science & Engineering.

### Vision

To become an icon of technical education that creates responsible professionals with social commitment.

### Mission

To provide the best learning with individual attention to students by imparting ICT enabled pedagogy, critical thinking skills and problem-solving to inspire lifelong learning with strict adherence to the principles of academic integrity and transform them into technically competent engineers.

## 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

### Institutional Strength

- The college is ISO 9001-2015 certified by Ministry of Electronics and Information technology, Government of India, for quality teaching systems in engineering and technology, and moved a long way in establishing its credentials as an institution, which has built its reputation in society.
- Serene campus and good learning environment.
- Provide quality, value-based and career-oriented education to students.
- Commitment of the management to inculcate value based education to impart ethical, moral, social, cultural and spiritual values via various curricular, co-curricular and extracurricular activities.

- The institution is well equipped with modern instruments to carry out UG and PG programmes. Facilities include seminar halls, drawing halls, class rooms, well equipped laboratories, workshops, computer center, college office, conference room, cafeteria, and gymnasium.
- Actively functioning Innovation and Entrepreneurship Development Cell (IEDC) and start-up mission in campus to promote creativity and entrepreneurship.
- Highly experienced, competent, professional, enthusiastic, committed and interactive faculty who provide quality teaching.
- Faculties are encouraged for doing research leading to the award of Ph.D.
- Well equipped and furnished library with books from various disciplines, integrated library management system (LIBSOFT) and e-learning facilities.
- E-journals and e-books are subscribed for acquiring innovations in the field of engineering and technology.

### **Institutional Weakness**

- Remote area without easy access.
- Underdeveloped industrial sector in the neighbourhood community, which leads to less internship and project opportunities.
- Funded projects are not getting sanctioned due to the want of accreditation.
- Being in a rural area, the percentage of slow learners are more.
- Percentage of placement in core companies is less.

### **Institutional Opportunity**

- All the departments are equipped with state-of-the-art facilities.
- Training students for placements and competitive examinations.
- Mentoring the students to achieve remarkable results in university examinations.
- Providing industrial exposure to students through internships, projects, visits and interactions by MoUs.
- Set-up for establishing start-ups and breed innovative ideas.
- Encouraging active participation towards research and consultancy.
- Nourishing talent in extra and co-curricular activities.

### **Institutional Challenge**

- Facilitating placement in core industries.
- Attracting students with meritorious background.
- Lesser aspirants for engineering degree.
- Strengthening relationship with stakeholders.
- Acquiring research projects from various funding agencies.
- Coordinating Academic, Co-curricular and extra-curricular activities as per the academic calendar provided by the university.

## **1.3 CRITERIA WISE SUMMARY**

## Curricular Aspects

BMCE follows a culture of integrity and ethics which reflects in our performance in learning and teaching, knowledge, assessment and services offered. These are measured and evaluated periodically. BMCE strictly adheres to the curriculum designed and developed by the affiliating University (APJ Abdul Kalam Technological University). Institution follows an academic calendar framed by IQAC (Internal Quality Assurance Cell) with reference to university schedule. Meticulous planning is done at departmental and college level at the beginning of every academic year for the effective delivery of curriculum.

Institution takes a conscious effort to plan, deliver and assess curriculum through a well defined frame work which includes the preparation of semester plan, proper timetable, lesson plans, entry of hourly attendance of students at department level and is daily monitored by the principal and management, biweekly assessment of portion coverage, result analysis etc, as well as the appointment of class advisors for the proper monitoring of the attendance of the students and their academic progress. A well functioning exam cell exists for ensuring high standards of ethics in conducting exams. The effective implementation of curriculum is ensured by supplementing classroom teaching with seminars, ICT based teaching methods, projects, in-house and industry oriented projects, industrial visits and internships, hands-on-sessions, tutorials e-learning assignments, internal-tests etc. The course planning is done by every faculty member, which includes course contents, identification of curriculum gaps based on predefined POs and COs, keeping in-line with institute's vision and mission. Curricular, co-curricular and extra-curricular activities organized and supported by the college transform the students from mere engineering graduates to professional engineers. BMCE has taken efforts to integrate cross-cutting issues relevant to gender, environment and sustainability, human values and professional ethics into the curriculum. Internal audit is conducted by the institution and external audit by the university which ensures the quality of the curriculum delivery.

The effectiveness of the curriculum followed is checked by a feedback system which involves stake holders from students, teachers, parents, employers, and alumni.

## Teaching-learning and Evaluation

This criteria deal with teaching and learning process of the institution. The admission process is transparent and as per University and Government norms. 50 % of admission is through management quota and 50 % admission through state allocation. The College offers 7 programmes covering UG and PG levels in Engineering. The college prepares an academic calendar at the beginning of every academic year, with focus on periodical internal tests, special events such as seminars, conferences and workshops, and co-curricular activities. Individual teachers prepare work plans, which are submitted to the heads of departments. ICT enabled teaching is practiced and the available infrastructure is used to its optimum. Maximum use of ICT, utilization of resources like NPTEL is promoted by the institution to have teaching learning more effective. Institution is always keen about providing required training and resources to the faculty members. The College caters to student centered learning which includes methods such as experimental learning, participative learning and problem solving methodologies like student projects, seminars and assignments. The language laboratory caters to all students at the undergraduate level.

The learning levels of the students are assessed regularly and corrective actions are taken. The institution follows a semester system; almost equal weightage is given to external semester examination and to internal assessment. The internal assessment comprises of a number of components which include class tests, attendance, internal examination, project, seminar etc. Several reforms have been implemented to ensure

transparency and fairness for various internal and external evaluations conducted by the institution. Due to the efforts taken by the faculty members and students, most of the students complete their engineering program in the stipulated time with good percentage of marks. Records of evaluation of students are available online through student login on institution web portal which can be accessed by student from their homes. Outcomes of teaching learning process are evaluated on the basis of overall performance and skills acquired. The evaluations and stakeholders' feedbacks are analyzed and reviewed for further planning and execution. The attainments of course and program outcomes are continuously evaluated and monitored.

### **Research, Innovations and Extension**

The institute promotes research, innovation, development culture through various activities. The institute has formed Entrepreneurship Development Cell to promote skill development. Students are motivated to work on innovative projects. The institution also provides support for consultancy works related to the industry. Faculties and students have published their research work in reputed peer reviewed journals which are listed in UGC Care and indexed by Scopus, SCI etc. International Conferences technically sponsored by IEEE, Springer, Elsevier are conducted by the institution for the benefits of the research community. The library provides rich content with around 90000 e-books, 20000 e-journals and over 1,00,000 multimedia content. Institutes NSS unit organized many activities such as blood donation, tree planting, medical checkup camp, Swachh Bharat mission etc.

### **Infrastructure and Learning Resources**

Our college is situated on the banks of the Sasthamcotta Lake offering a pleasant and serene atmosphere suitable for learning. The institution aims to provide world class infrastructure adequate for professional and personal growth of engineering students as well as to meet the academic and administrative requirements of the college. The infrastructure consists of various buildings including 30 classrooms, 38 laboratories, 7 seminar halls, auditorium, gym center, smart classrooms, library, health centre, restrooms, store, cafeteria etc, which are spread over an area of 27.1 acres. Sports facilities at our college are adequate for hosting of inter-college tournaments. The college also has indoor and outdoor facilities, for sports and cultural activities. A modern gym has been set up in the college campus to ensure a sound body and mind. Ramps are provided for physically disabled students. All buildings provided with fire-fighting equipment and first aid box. Library comprises of 27626 books, 50 journals with 656 sq.m library area. Rare books collection in the library enables students and faculties to access books which are difficult to find from other sources. The Library is using commercial software LIBSOFT for automation of Library Services. Institute has a rich IT infrastructure and it is regularly updated. The institute has 385 computers with 50Mbps internet connectivity to fulfill the academic and research needs of the institute. The college has a well-established system for maintaining and utilizing all the facilities. For improving the physical ambience of the campus, several initiatives are taken as per necessity like painting and white washing of building and labs, ground-men for maintaining grounds, lawns and upkeep of plants. Laboratory maintenance is done at beginning of each semester in accordance with respective department lab criteria. Computers are always kept updated with the latest software to cater to the needs of the students. The computers and their accessories are maintained by technical staff in labs. To ensure hassle free and safe transportation to staff and students, the college buses are plying to and from from Kollam, Kottarakara, Mavelikkara, Chathannoor, Kayamkulam, Chavara, Anchalumood, Pathanapuram, Adoor, Pandalam etc.

### **Student Support and Progression**

Students play a crucial and active role in education and they form the integral part of our institution. The institution makes many efforts to provide necessary support to its students and also in facilitating good campus experiences for their holistic development. The pivotal part of this criterion is the salient role played by the institution towards the development of the students in various areas ranging from financial assistance in studies to development of co-curricular activities. The institution ensures various kinds of scholarships for the eligible students. Apart from government offered scholarships, college management offers additional scholarships for the economically weak and meritorious students. In capability enhancement and development schemes institute offers a mentoring system for overall development of students, which includes personal counseling, industry expert lectures, industrial visits, internships etc. Students are provided guidance to perform well in competitive examinations, training for communicative and soft skills, remedial coaching for slow learners, counseling for academic and stress related issues, physical and mental fitness through sports, yoga, and meditation etc. Grievance redressal mechanism operates in a fully fledged manner. Students are effectively represented in and through class committee meetings, online feedback mechanism, IQAC meetings, meetings related to co-curricular activities. Students are encouraged to participate in various co-curricular activities organized by the college. Alumni are the brand-ambassadors of our institution. An organization's alumni are the reflection of its past, representation of its present and a link to its future. College has an active alumni chapter across the globe and alumni meetings are held annually.

### **Governance, Leadership and Management**

For the effective leadership in accordance with its vision and mission, the institution has a well structured and effective governance of management. There is a well defined strategic plan which includes deciding policies to foster excellence in curricular, co-curricular and extra-curricular activities and ensure effective resource mobilization. This governance structure has a culture of involving faculty members in various committees such as purchase committee, discipline committee, grievance committee, IQAC and the decision making process. The practice of decentralization leads to a productive management and evolutionary reforms. The institute has a performance appraisal system for the faculty and also motivates them to attend FDP workshops, seminars and conferences. The institute has a fair and effective management through a pool of academic members of the governing body, to accomplish the objectives. There is a regular conduct of internal and external audits monitoring budget allocation and income expenditure report verification. The institution has a well established IQAC (Internal Quality Assurance Cell) to control quality management strategies in all the academic and administrative aspects.

### **Institutional Values and Best Practices**

The institute provides adequate safety facilities like CCTV, fire extinguisher, Safety Practices like Mock Drill etc. Students residing in the college hostel feel safe and satisfied with round the clock security and good monitoring systems. College has a good transportation system for the day scholars and members of staff. The women cell proactively operates for empowering female students and faculties and also deals with incidents regarding sexual harassment against women. The college promotes green practices such as tree planting, agricultural activities, gardening, waste management, minimum use of paper, plastic and litter-free campus, bicycle usage etc. The college always motivates the students for social commitment along with career development, by providing consultancy support along with various energy conservation initiatives, maximum use of renewable energy, rain water harvesting etc. Various activities and campaigns are conducted in the college in association with days of national, cultural and technical importance. Active NSS units organize various social activities involving local community. The college has introduced many innovations in academics,

student support, value based education, quality assurance and personality development. The college also has a start-up cell named BMCE Technologies to implement the innovative ideas of students into reality. The college has signed various MoUs to enhance industry interaction. The best practices of our college are providing technical consultancy support for rural housing projects (TCRHP) and on-the-job training for vocational school students.

NAAC

## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	BASELIOS MATHEWS II COLLEGE OF ENGINEERING
Address	Lake View Sasthamcotta, Kollam ,69052
City	KOLLAM
State	Kerala
Pin	690520
Website	<a href="http://bmce.ac.in">bmce.ac.in</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	L Padma Suresh	0476-2835579	9443474555	0476-476283 5579	bm2coe@gmail.com
IQAC / CIQA coordinator	Arun Baby Zacharia	0476-2836386	8301831401	0476-476283 6386	zachariaarun@gmail.com

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular



<b>Recognized Minority institution</b>	
If it is a recognized minority institution	Yes <a href="#">minority0001.PDF</a>
If Yes, Specify minority status	
Religious	Christian
Linguistic	
Any Other	

<b>Establishment Details</b>	
Date of establishment of the college	27-05-2002

**University to which the college is affiliated/ or which governs the college (if it is a constituent college)**

State	University name	Document
Kerala	A.P.J. Abdul Kalam Technological University	<a href="#">View Document</a>

**Details of UGC recognition**

Under Section	Date	View Document
2f of UGC		
12B of UGC		

**Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)**

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	<a href="#">View Document</a>	10-04-2019	12	

**Details of autonomy**

Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?	No
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<b>Recognitions</b>	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

<b>Location and Area of Campus</b>				
<b>Campus Type</b>	<b>Address</b>	<b>Location*</b>	<b>Campus Area in Acres</b>	<b>Built up Area in sq.mts.</b>
Main campus area	Lake View Sasthamcotta, Kollam ,69052	Rural	27.1	22224

## 2.2 ACADEMIC INFORMATION

<b>Details of Programmes Offered by the College (Give Data for Current Academic year)</b>						
<b>Programme Level</b>	<b>Name of Programme/Course</b>	<b>Duration in Months</b>	<b>Entry Qualification</b>	<b>Medium of Instruction</b>	<b>Sanctioned Strength</b>	<b>No.of Students Admitted</b>
UG	BTech,Computer Science And Engineering	48	Higher secondary	English	60	48
UG	BTech,Electrical And Electronics Engineering	48	Higher secondary	English	60	16
UG	BTech,Applied Electronics And Instrumentation Engineering	48	Higher secondary	English	30	8
UG	BTech,Mechanical Engineering	48	Higher secondary	English	60	34
UG	BTech,Civil Engineering	48	Higher secondary	English	60	49
UG	BTech,Electronics And Communication Engineering	48	Higher secondary	English	30	13
PG	Mtech,Computer Science And Engineering	24	BTech	English	24	7

### **Position Details of Faculty & Staff in the College**

<b>Teaching Faculty</b>												
	<b>Professor</b>				<b>Associate Professor</b>				<b>Assistant Professor</b>			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	9				4				64			
Recruited	7	2	0	9	3	1	0	4	21	43	0	64
Yet to Recruit	0				0				0			

<b>Non-Teaching Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				23
Recruited	11	12	0	23
Yet to Recruit				0

<b>Technical Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				19
Recruited	14	5	0	19
Yet to Recruit				0

**Qualification Details of the Teaching Staff**

<b>Permanent Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	6	2	0	3	1	0	0	0	0	12
M.Phil.	0	0	0	0	0	0	0	1	0	1
PG	1	0	0	0	0	0	21	42	0	64

<b>Temporary Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

<b>Part Time Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

<b>Details of Visting/Guest Faculties</b>					
<b>Number of Visiting/Guest Faculty engaged with the college?</b>	<b>Male</b>		<b>Female</b>		<b>Total</b>
	0	0	0	0	0

**Provide the Following Details of Students Enrolled in the College During the Current Academic Year**

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	66	0	55	0	121
	Female	29	0	18	0	47
	Others	0	0	0	0	0
PG	Male	0	0	0	0	0
	Female	7	0	0	0	7
	Others	0	0	0	0	0

**Provide the Following Details of Students admitted to the College During the last four Academic Years**

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	2	3	4	3
	Female	1	1	0	3
	Others	0	0	0	0
ST	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
OBC	Male	22	27	32	40
	Female	16	13	15	15
	Others	0	0	0	0
General	Male	51	67	93	102
	Female	30	37	51	50
	Others	0	0	0	0
Others	Male	12	14	6	16
	Female	5	4	9	9
	Others	0	0	0	0
Total		139	166	210	238

### 3. Extended Profile

#### 3.1 Program

Number of courses offered by the Institution across all programs during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
387	381	379	380	363
File Description			Document	
Institutional data prescribed format			<a href="#">View Document</a>	

Number of programs offered year-wise for last five years?

2018-19	2017-18	2016-17	2015-16	2014-15
7	7	7	7	7

#### 3.2 Students

Number of students year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
794	869	938	959	979
File Description			Document	
Institutional data in prescribed format			<a href="#">View Document</a>	

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
150	180	180	180	180
File Description			Document	
Institutional data in prescribed format			<a href="#">View Document</a>	

Number of outgoing / final year students year-wise during last five years



2018-19	2017-18	2016-17	2015-16	2014-15
217	211	242	232	260
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

### 3.3 Teachers

#### Number of full time teachers year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
80	96	100	115	122
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

#### Number of sanctioned posts year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
69	75	75	75	75
File Description		Document		
Institutional data in prescribed format		<a href="#">View Document</a>		

### 3.4 Institution

#### Total number of classrooms and seminar halls

**Response: 37**

#### Total Expenditure excluding salary year-wise during last five years ( INR in Lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
356.18	381.02	425.08	343.32	380.58

#### Number of Computers

**Response: 345**

## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curricular Planning and Implementation

##### 1.1.1 The Institution ensures effective curriculum delivery through a well planned and documented process

##### Response:

Baselios Mathews II College of Engineering (BMCE) is affiliated to the University of Kerala, till 2014 and to Kerala Technological University in accordance with Chapter VIII of the Ordinance to establish Kerala Technological University (KTU from the academic year 2015-16. The Institution strictly follows the curriculum provided by the respective universities.

- **University** curriculum has been prepared by an expert committee which consists of faculties from different institutions. University also provided academic calendar, scheme and syllabus including course objectives, total credit and texts/reference books to be followed.
- This **institution** currently provides Six AICTE-approved UG courses and P G Course in Computer Science and Engineering. Institute follows an academic calendar framed by IQAC with reference to university schedule. Principal conducts a common meeting with all teaching and non teaching staff before commencement of every semester. Meticulous planning is done at department and college level meetings at the beginning of every academic year. Institute has adopted innovative and creative teaching learning process, tools and techniques by implementing advanced concept of pedagogy, use of ICT, student centric methods etc. for enhancing teaching and learning experience. The effective implementation of curriculum is ensured by supplementing classroom teaching with seminars, mini projects, in-house and industry supported projects, industry visits, industrial internships, hands-on-sessions, tutorials e-learning assignments, internal-tests etc. Contents beyond curriculum are identified and taught both in the classroom and in the laboratory to expose students to recent trends in the industry. Institute has taken initiative to provide soft skill training, value added courses and counseling for holistic development of students.
- Work load calculation is done by **department**, theory and practical subjects are allotted based on the faculty's specialization and experience. Time table for each semester is prepared by the department level according to the lecture, tutorial and practical session proposed by the university. After commencement of semester classes, the progress of syllabus coverage and performance of students are regularly monitored by the HODs and the Department advisory Committee. Attendance of students is monitored by the advisor and the HOD. Internal tests are conducted according to the academic calendar.
- Course Outcome and teaching plan are prepared by the corresponding **faculty** depending upon the syllabus. The faculty member responsible for teaching a course, continuously measures and evaluates the academic performance of students through internal tests before they appear for the University Examinations. Course file is maintained by individual faculty which contains time table, syllabus, teaching plan, attendance, assignment/tutorial questions and marks, internal assessment marks, question bank and previous university questions. Remedial classes are arranged for weak students for improving their academic performance.
- To improve the teaching quality of the faculty feedback system is implemented in the institute, students can give feedback about the lectures and rating is given by the students to the faculty.

File Description	Document
Upload Additional information	<a href="#">View Document</a>

### 1.1.2 The institution adheres to the academic calendar including for the conduct of CIE

#### Response:

B.Tech programme in all branches of study is structured on a credit based system following the semester pattern with continuous internal evaluation allowing flexibility for students to decide on the duration of programme completion.

For every academic year, the university publishes an academic calendar; based on the university academic calendar the institution prepares an academic calendar. The institutional academic calendar helps the smooth functioning of academic as well as extracurricular activities in the institution. It includes the dates of re-opening, bridge course, orientation course, commencement of internal tests, commencement of semester examinations, important functions of the college and Government, local and institutional holidays etc.

Based on the number of working days in the academic calendar the teaching plan is prepared by the individual faculty under the guidance of respective Head of the Department. Internal examinations are conducted strictly based on the guidelines of APJKTU and as per the academic calendar. The marks are published as per the schedule given in Academic calendar; University examination dates, result declaration as well as approved holidays falling within the semester are also mentioned in the academic calendar. Schedules for the supplementary examinations and result declaration dates will be included in the calendar. The schedule of summer courses is also mentioned in the calendar. The schedule for academic-oriented activities like seminars/workshops/ conferences to be organized, cultural programs for various activities, schedule of UG and PG project reviews are decided in the respective departments/committees etc., based on the institutional academic calendar.

Based on this, the institution follows a strict evaluation process which includes:

- i) Audit plan to ensure that faculties follow a well planned procedure for imparting instructions.
- ii) Two internal examinations, class tests and practical viva-voce examinations.
- iii) Evaluation of assignments, laboratory work, tutorial classes and participation in class discussion/seminars.
- iv) Final/End Semester Examination conducted for all undergraduate & post graduate courses in which students are registered each semester as per established documented procedures.

File Description	Document
Upload Additional information	<a href="#">View Document</a>
Link for Additional information	<a href="#">View Document</a>

**1.1.3 Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the last five years**

1. Academic council/BoS of Affiliating university
2. Setting of question papers for UG/PG programs
3. Design and Development of Curriculum for Add on/ certificate/ Diploma Courses
4. Assessment /evaluation process of the affiliating University

E. None of the above

D. Any 1 of the above

C. Any 2 of the above

B. Any 3 of the above

**Response:** A. All of the above

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Details of participation of teachers in various bodies/activities provided as a response to the metric	<a href="#">View Document</a>

## 1.2 Academic Flexibility

**1.2.1 Percentage of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented**

**Response:** 100

**1.2.1.1 Number of Programmes in which CBCS / Elective course system implemented.**

**Response:** 7

File Description	Document
Minutes of relevant Academic Council/ BOS meetings	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 1.2.2 Number of Add on /Certificate programs offered during the last five years

**Response:** 10

#### 1.2.2.1 How many Add on /Certificate programs are added within the last 5 years.

2018-19	2017-18	2016-17	2015-16	2014-15
2	2	3	2	1

File Description	Document
List of Add on /Certificate programs	<a href="#">View Document</a>
Brochure or any other document relating to Add on /Certificate programs	<a href="#">View Document</a>

### 1.2.3 Average percentage of students enrolled in Certificate/ Add-on programs as against the total number of students during the last five years

**Response:** 7.69

#### 1.2.3.1 Number of students enrolled in value added courses (beyond the curriculum) offered year-wise during last five years.

2018-19	2017-18	2016-17	2015-16	2014-15
54	87	108	61	37

File Description	Document
Details of the students enrolled in Subjects related to certificate/Add-on programs	<a href="#">View Document</a>

## 1.3 Curriculum Enrichment

### **1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum**

#### **Response:**

The Institution believes that integrating cross cutting issues with the curriculum would create positive effect on the student in both in terms of his education and societal commitment. Accordingly courses in gender sensitization, environment and sustainability, human values and professional ethics are offered by the Institution. To supplement this, the institute conducts several awareness sessions and related activities.

#### **Professional Ethics**

APJ Abdul Kalam Kerala Technological University has introduced the course Professional Ethics HS482 to create awareness on morals, values and ethics, and to become responsible engineers, experimenters, researchers or business men. The course also covers topics such as Intellectual Property Rights (IPR), Multinational Corporations, Business Ethics, Environmental Ethics and Computer Ethics.

#### **Gender issues**

For the empowerment of women we have a well-developed Women cell in our college. The Women cell is headed by a senior faculty member and student representatives as executive members. Counselling sessions and awareness programs are conducted for women each year during the women's day. Gender equity awareness is created by conducting programs like seminars, debates, group discussions for both boys and girls on a single platform. Girl students are given equal opportunities to perform in various extracurricular activities such as arts fest, tech fest, sports day and other programs organized by the students.

#### **Human Values**

As an integral part of student engagement in social activities during their programme of study, Institute also organizes human values in an academic year. It aims at inculcating values, ethics and socially responsible qualities. Students organize street plays, awareness campaigns, debates etc. Human values activities by students are being conducted since inception of the Institution. BMC is a member of "UNITED NATIONS" Academic impact program, UNAI-ASPIRE (Action by Students to promote Innovation and Reform through Education) is sharing a culture of Intellectual social responsibility. The courses like Life skills HS 210 and Business economics HS 200 are introduced by APJ Abdul Kalam Kerala Technological University to enrich knowledge on human values.

#### **Environment and Sustainability**

The Institute has established a National Social Service (NSS) unit under the KTU. NSS organizes activities related to Environment and Sustainability like Swachha Bharat Abhiyan, Tree Plantation, and Plastic Kachra Mukta Abhiyan. Blood Donation Camps and Flood Relief are organized under human value activities. Professional ethics are imbibed amongst students by encouraging them to participate in the professional activities like seminars, conferences, workshops, tech fests are organized by the students for the students. The Institution has a commitment to the principle of Sustainability “SAMRAKSHATHY” save the Sasthamcotta Lake, which is the largest fresh water lake in Kerala. Sustainability engineering is introduced by KTU across all disciplines which introduce the need and concept of sustainability, challenges, global, regional and local environment issues. Environmental study is already a course in most of the UG curriculum. Environmental Impact assessment assesses the condition of sustainable development through physical, chemical, biological and ecological system of measurement, which ensures that the students will have a basic knowledge of various pollution sources and their impacts.

File Description	Document
Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum.	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 1.3.2 Average percentage of courses that include experiential learning through project work/field work/internship during last five years

Response: 5.29

#### 1.3.2.1 Number of courses that include experiential learning through project work/field work/internship year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
20	20	20	20	20

File Description	Document
Programme / Curriculum/ Syllabus of the courses	<a href="#">View Document</a>
MoU's with relevant organizations for these courses, if any Average percentage of courses that include experiential learning through project work/field work/internship	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**1.3.3 Percentage of students undertaking project work/field work/ internships (Data for the latest completed academic year)****Response:** 52.9**1.3.3.1 Number of students undertaking project work/field work / internships**

Response: 420

<b>File Description</b>	<b>Document</b>
List of programmes and number of students undertaking project work/field work/ /internships	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**1.4 Feedback System**

**1.4.1 Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders 1) Students 2)Teachers 3)Employers 4)Alumni**

**E. None of the above****D. Any 1 of the above****C. Any 2 of the above****B. Any 3 of the above****Response:** A. All of the above

<b>File Description</b>	<b>Document</b>
Any additional information (Upload)	<a href="#">View Document</a>
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	<a href="#">View Document</a>
URL for stakeholder feedback report	<a href="#">View Document</a>

**1.4.2 Feedback process of the Institution may be classified as follows: Options:**

- 1. Feedback collected, analysed and action taken and feedback available on website**
- 2. Feedback collected, analysed and action has been taken**
- 3. Feedback collected and analysed**
- 4. Feedback collected**
- 5. Feedback not collected**



**E. Feedback not collected**

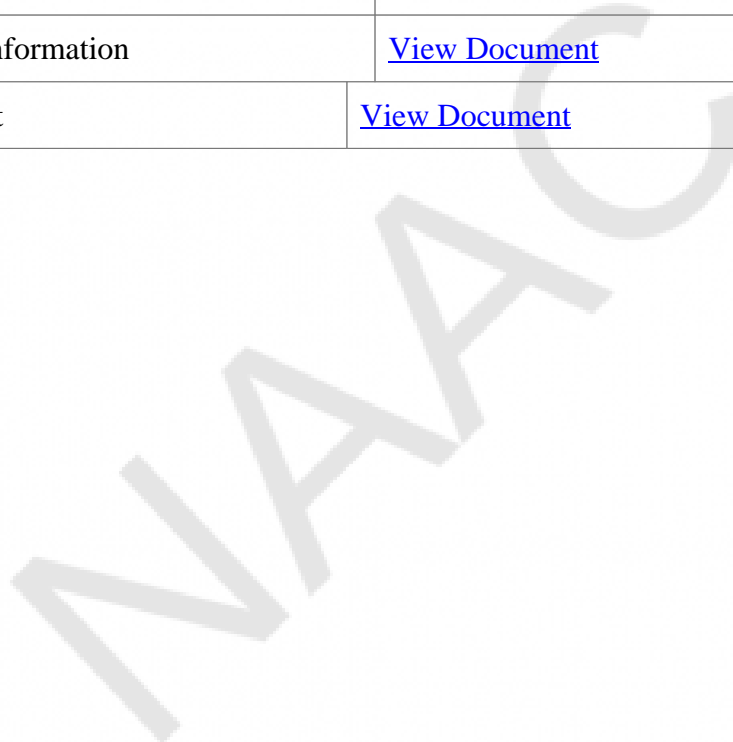
**D. Feedback collected**

**C. Feedback collected and analysed**

**B. Feedback collected, analysed and action has been taken**

**Response:** B. Feedback collected, analysed and action has been taken

File Description	Document
Upload any additional information	<a href="#">View Document</a>
URL for feedback report	<a href="#">View Document</a>



## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Average Enrolment percentage (Average of last five years)

**Response:** 54.85

##### 2.1.1.1 Number of students admitted year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
141	178	238	237	216

##### 2.1.1.2 Number of sanctioned seats year wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
318	378	378	378	378

#### File Description

#### Document

Institutional data in prescribed format

[View Document](#)

Any additional information

[View Document](#)

#### 2.1.2 Average percentage of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years ( exclusive of supernumerary seats)

**Response:** 34.69

##### 2.1.2.1 Number of actual students admitted from the reserved categories year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
46	61	56	67	73

File Description	Document
Average percentage of seats filled against seats reserved	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 2.2 Catering to Student Diversity

### 2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

#### Response:

To enable students to cope-up with the programme of their choice, orientation programmes are conducted before the commencement of the programme. They are made aware of the curriculum, syllabus, pre-requisites and rules and regulations of the University. They are also exposed to various facilities in the laboratories in the department. The teachers usually spend a few classes for recapitulation of major concepts in the subjects that the students have studied in school to bridge the gap, if any. Bridge courses are generally conducted for mathematics, basic sciences, programming languages etc. for the incoming students from different backgrounds.

The institute maintains an efficient advisory system wherein one advisor is assigned to keep track of the performance of around 30 or less students. The advisors identify and monitor continuously, the students who may be academically under-performing, economically weak, or the ones with personal struggles, so as to support them in making learning more fruitful. In addition to the advisory data, each advisor maintains documents containing information pertaining to attendance, subject/classroom/lab involvement, performance in class test, assignments etc. Assistance is provided by the institution to students in the form of special coaching, remedial classes, scholarships, financial aid, simplified learning material and personal counseling. Reports on all student assessments are sent to the parents and they are directed to meet senior advisors/HoD in person, if the performance of their ward is poor.

Students are identified as advanced learners and slow learners. These are identified on the basis of involvement in classroom, performance in previous university exam and first internal test. Students who scored marks below 50% are categorized as slow learners and who scored above 70% is categorized as advanced learners. Departments conduct remedial classes for slow learners so that they all are getting individual attention. Special care is taken by faculty in monitoring the performance of slow learners, faculty members revise the tough topic as per the students requisition and provide university question bank and discuss the way of presenting the answers in the exam to score marks. First hour class test is conducted on alternate days for periodical evaluation of students.

Semester Toppers and University rank holders are encouraged with certificates and cash prizes during the College day celebrations. Students are encouraged to be member of professional bodies and organize technical events. They are advised to participate in group discussions, technical quizzes to develop analytical and problem solving ability in them and thereby to improve their presentation skill. Opportunities are providing to develop their creativity by participating and organizing intercollegiate technical fest. By giving these opportunities students are getting out of the fear of facing challenges and through this they can reach their final goals without any obstacle. In order to motivate both the slow

learners and advance learners, workshops are organized to enhance their skills with the active participation of advanced learners as coordinators both set of students get benefited.

File Description	Document
Upload any additional information	<a href="#">View Document</a>

### 2.2.2 Student- Full time teacher ratio (Data for the latest completed academic year)

**Response:** 9.93

File Description	Document
Any additional information	<a href="#">View Document</a>

## 2.3 Teaching- Learning Process

### 2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

**Response:**

- In the curriculum, most of the theory subjects have tutorial hours during which tutorial questions are given. The tutorial questions are solved by the students by interacting with the faculty.
- In the labs, students are divided into groups and an interactive learning process is encouraged.
- Further, more student-centric learning strategies such as group discussions, debates, and quizzes are also practiced in the institute.
- Expert lectures are organized for imparting soft skills, aptitude skills and technical skills for the benefit of students.
- Student projects provide best opportunities for collaborative as well as independent learning. The individual contribution, leadership skills and team efforts are evaluated during project evaluation.
- To support independent and collaborative learning, the institute conducts technical competitions; inter collegiate technical symposium, paper presentations, etc. Students are also encouraged to participate in such competitions organized by other reputed institutes.
- Assignments on advanced topics in every course are given which make the students to acquire the self-learning capability.
- Faculties attend short term training programmes and Faculty development programmes to acquire updates about new technologies in engineering and technology field.
- In addition to academic activities, for overall development of students, the institute encourages participation in intra and inter-college cultural and technical events.
- Digital resources such as e-books and e-journals are available to students in the central library and department library.

File Description	Document
Upload any additional information	<a href="#">View Document</a>

### 2.3.2 Teachers use ICT enabled tools for effective teaching-learning process.

#### Response:

Information and communication technologies (ICT) is defined, as a “diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information”. ICT can not only improve learning; but can also break down teacher and student stereotypes and boost self-esteem and would revolutionize the higher education system. All the teaching staff in the college is using Information and Communication Technologies (ICT) for various purposes including teaching and learning. The library has digital resources such as e-books, e-journals and multimedia content to support ICT in teaching. Extensive use is made for e-learning resources by individual instructors. Faculty members use online resources and lectures as part of their courses, video lectures are also used. Faculty members prepare presentations of the course topics they are teaching at the beginning of the semester itself and use the presentations during the lectures. Each department is equipped with a smart class room which constitutes of a projector and laptop for ICT. Faculty members have registered and using NPTEL, Swayam courses while preparing the subject and use it during teaching. Students have enrolled for MOOC courses offered through NPTEL. NPTEL local chapter is operating at the college to create awareness of online courses among students and faculty.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	<a href="#">View Document</a>

### 2.3.3 Ratio of mentor to students for academic and other related issues (Data for the latest completed academic year )

**Response:** 19.85

#### 2.3.3.1 Number of mentors

Response: 40

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll.	<a href="#">View Document</a>
mentor/mentee ratio	<a href="#">View Document</a>
Circulars pertaining to assigning mentors to mentees	<a href="#">View Document</a>

## 2.4 Teacher Profile and Quality

### 2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Response: 138.66

File Description	Document
Year wise full time teachers and sanctioned posts for 5years(Data Template)	<a href="#">View Document</a>
List of the faculty members authenticated by the Head of HEI	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 2.4.2 Average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)

Response: 5.03

#### 2.4.2.1 Number of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. year wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
7	7	4	4	2

File Description	Document
List of number of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. and number of full time teachers for 5 years (Data Template)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest

completed academic year in number of years)

**Response:** 6.09

#### 2.4.3.1 Total experience of full-time teachers

Response: 487

File Description	Document
List of Teachers including their PAN, designation, dept and experience details(Data Template)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 2.5 Evaluation Process and Reforms

### 2.5.1 Mechanism of internal assessment is transparent and robust in terms of frequency and mode

**Response:**

Procedures for Internal assessment of different courses are enumerated in the following section.

a) **Theory courses:** For all theory courses minimum two tutorials/assignments are given. Two centralized internal examinations are conducted by the examination cell. Exam time table is published one week in advance. Question paper prepared by the faculty member is scrutinized and verified by the department heads. The evaluation of answer scripts are done as per the scheme of evaluation and returned to students. The faculty discusses all the questions in the question paper and their correct answers. Suggestions are given to the students who need to improve and the ones who performed well are appreciated. The feedback on their performance helps the student to perform better next time. Finalized marks are verified by the teachers and students before displaying on the notice boards. Marks are intimated to the parents and regular PTA meetings are conducted. Therefore, the process of continuous internal assessment is carried out with complete transparency.

b) **Laboratory courses:** Assessment for the lab courses is done at the college itself. The total number of experiments/ works is divided into different lab cycles. Evaluation of individual students is done based on their outputs of experiments/ works and daily viva. Output and viva marks are daily updated on student's work record. At the end of the semester, lab examination is conducted under the supervision of department heads.

c) **Comprehensive examination:** The objective of conducting comprehensive examination is to assess the comprehensive knowledge gained in basic courses relevant to the branch of study. As per the university guidelines each department conducts oral examination for the students. The marks secured by the students are published in the notice boards of respective departments. At the end of the semester, a comprehensive viva is conducted by an assessment committee consisting of an external subject expert/ industrial expert.

d) **Design project:** Evaluation of the design project takes place at three different stages. For the evaluation, the heads of respective departments nominate a two-member committee for each department. The first evaluation is done immediately after the first internal examination. The second evaluation is carried out



immediately after the second internal examination. The final evaluation takes place during the last week of the semester. All the evaluations are based on the guidelines of APJKTU.

e) **Seminar:** An assessment committee is nominated by respective department heads. The committee evaluates the seminar of individual students based on their presentation ability, ability to answer questions and reports submitted by the students.

f) **Project:** Project evaluation is done in two semesters as per the guidelines of APJKTU. During the seventh semester, preliminary project evaluation is done at every department by an assessment committee. Two progress evaluations are mandatory for the preliminary stage. Final evaluation of the project takes place in the eighth semester. Two progress evaluations and one final evaluation is mandatory. An external expert is included in the assessment committee for the final project presentation and viva voce.

File Description	Document
Any additional information	<a href="#">View Document</a>

### 2.5.2 Mechanism to deal with internal/external examination related grievances is transparent, time-bound and efficient

#### Response:

**Institution level:** The institution conducts internal and external examinations as per university norms. The question paper is prepared by the concerned staff member and verified by head of the department and principal. Based on internal examination, attendance and assignments, internal marks are generated and published in the notice board. If the students have any grievance regarding internal marks it can be reported to head of the department for further action. The institution has a grievance redressal mechanism that functions for the students and faculty. A decentralized functioning is being effectively practiced in the campus. Majority of the grievances are taken care of by the respective department. To take care of major grievances, a central grievances redressal committee is also constituted which consists of members nominated by the principal.

The Institution will follow a zero tolerance policy against malpractices of all kinds during internal examinations. Candidate found involving in any sort of malpractices during an internal examination will not be permitted to further attend the examination. The invigilator on duty should send the student out of the hall immediately. The matter is to be reported to the authorities in writing, along with the answer script, as soon as possible or immediately after the completion of the examination. The statement submitted by the invigilator on duty will be taken in face value for any further action in this regard. In any such case of reporting from the invigilator on duty, the respective internal examination of the candidate(s) will be treated as cancelled. The invigilator/superintendent of examinations is authorized to proceed with disciplinary actions immediately and release appropriate orders/warning letters. Copies of the order/warning letters shall be forwarded to the respective senior adviser of the candidate through the head of the department. If a candidate is reported involved in malpractices again, all internal examinations appeared/to be appeared by the candidate in that series will be cancelled. The superintendent is authorized to proceed with the disciplinary actions and release appropriate orders. Copies of the order shall be forwarded to respective head of the department and senior advisers of the candidate. The senior advisers



are to file copies of such incidences/reports in the advisory file of the candidate. In no case the candidate will be given re-test/makeup test for the same subject(s), if reported involved in malpractice.

**University level:** End semester examination conducted by the University in all lecture based courses offered in the semester. Once the university examination results are declared, the credit details of each subject are available in the student's login. If the student is not satisfied with the mark, he/she can apply for the copy of answer script and request for revaluation. A special fee is collected for the same by the University. Students are advised to go through the procedure before the last day of application. The revaluation fee will be refunded in case the student passes the exam.

File Description	Document
Any additional information	<a href="#">View Document</a>

## 2.6 Student Performance and Learning Outcomes

**2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.**

### Response:

- The Program Outcomes are displayed on the website and efforts are made to attain all the POs to the maximum extent as per University syllabus and additional activities.
- The PSOs are defined and they are made available on the website.
- The faculty frames the course outcomes (CO) and lesson plan of the concerned course in the beginning of every semester.
- The course outcomes of all the programmes offered by the institution are displayed on the institution website, through this way the course outcomes are communicated to students and teachers.
- Course outcomes are also displayed on the class notice boards.
- Based on the course outcomes, the faculty maps the CO with the program outcomes (PO).
- During the academic semester, faculty maintains the course file and delivers lectures as per academic calendar.
- The CO-PO attainment is calculated at the end of every semester and corrective measures are discussed to increase the attainment.

File Description	Document
Upload COs for all Programmes (exemplars from Glossary)	<a href="#">View Document</a>
Past link for Additional information	<a href="#">View Document</a>

**2.6.2 Attainment of programme outcomes and course outcomes are evaluated by the institution.**

**Response:**

- The Programme outcomes, Programme specific outcomes, course outcome attainment are measured on the basis of direct and indirect attainment.
- The direct attainment is calculated from
  1. Internal tests conducted internally by the college
  2. Continuous assessment which is considered from various assignments given by the teachers and Class test is also conducted.
- Internal tests, continuous assessment and class test is used for the calculation of direct attainment. A weightage is given to each course outcome based on the obtained value.
- Based on the student satisfaction survey of each course, indirect attainment is calculated.
- Once both the direct and indirect attainment are achieved, the total attainment of each course outcome are generated by considering 80% of direct attainment weightage and 20% of indirect attainment weightage.
- A target level for each course outcome is set by the subject experts; then attainment is compared with the target value. If the total attainment is greater than or equal to the target value, then we can conclude that the attainment of that course outcome is successfully achieved. If the attainment is lesser than the target value, corrective measures will be taken for improving the attainment.
- The PO's, PSO's are correlated with COs by the subject experts at the beginning of the semester. Once the total attainment of CO is achieved, it is used for measuring the level of attainment of POs and PSOs. If the compared value is either equal to or near to the correlated value, we can conclude that attainment is achieved successfully.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for Additional information	<a href="#">View Document</a>

**2.6.3 Average pass percentage of Students during last five years****Response:** 41.38**2.6.3.1 Number of final year students who passed the university examination year-wise during the last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
94	85	109	83	105

**2.6.3.2 Number of final year students who appeared for the university examination year-wise during the last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
217	207	248	227	263

File Description	Document
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	<a href="#">View Document</a>
Upload any additional information	<a href="#">View Document</a>

## 2.7 Student Satisfaction Survey

<b>2.7.1 Online student satisfaction survey regarding teaching learning process</b>	
<b>Response:</b>	
File Description	Document
Upload database of all currently enrolled students (Data Template)	<a href="#">View Document</a>

## Criterion 3 - Research, Innovations and Extension

### 3.1 Resource Mobilization for Research

**3.1.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)**

**Response: 2.1**

**3.1.1.1 Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)**

2018-19	2017-18	2016-17	2015-16	2014-15
1	1.1	0	0	0

File Description	Document
List of endowments / projects with details of grants	<a href="#">View Document</a>
e-copies of the grant award letters for sponsored research projects / endowments	<a href="#">View Document</a>

**3.1.2 Percentage of teachers recognized as research guides (latest completed academic year)**

**Response: 3.75**

**3.1.2.1 Number of teachers recognized as research guides**

**Response: 3**

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.1.3 Percentage of departments having Research projects funded by government and non government agencies during the last five years**

**Response: 13.33**

**3.1.3.1 Number of departments having Research projects funded by government and non-government agencies during the last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
1	3	0	0	0

### 3.1.3.2 Number of departments offering academic programmes

2018-19	2017-18	2016-17	2015-16	2014-15
6	6	6	6	6

File Description	Document
Supporting document from Funding Agency	<a href="#">View Document</a>
List of research projects and funding details	<a href="#">View Document</a>
Paste link to funding agency website	<a href="#">View Document</a>

## 3.2 Innovation Ecosystem

### 3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

#### Response:

Institution has taken following initiatives to create an ecosystem for innovations including an incubation centre and various student clubs for creation and transfer of knowledge.

#### **INNOVATION & ENTREPRENEURSHIP DEVELOPMENT CENTRE (IEDC)**

The institution launched the Innovation & Entrepreneurship Development Centre (IEDC) promoted by AICTE as part of our vision towards excellence in imparting quality education. The mission of the IEDC is to "develop institutional mechanism to create entrepreneurial culture among the stakeholders and to foster growth entrepreneurship amongst the students, faculty and the society at large".

#### **Objectives of the IEDC**

- To act as an institutional mechanism for providing various services including information on all aspects of enterprise building to budding entrepreneurs.
- To catalyze and promote development of knowledge-based enterprises and promote employment opportunities in innovative areas.
- To respond effectively to the emerging challenges and opportunities at state, national and international levels relating to small scale and micro enterprises.
- To organize entrepreneurship awareness camps, entrepreneurship development programs and

faculty development programs in the institution.

- To guide and assist prospective entrepreneurs on various aspects such as preparing project reports, obtaining project approvals, loans and facilities.
- To arrange visits to industries for prospective entrepreneurs.

## BMC TECHNOLOGIES

BMC Technologies; officially launched in Jan 2015, is a venture of student entrepreneurs registered under BMC Student Entrepreneur Society and managed by Baseliios Mathews II College of Engineering, Sasthamcotta, Kollam. It is an in-house product development unit exploiting the benefits of Innovation & Entrepreneurship Development Centre (IEDC) through Technopark-Technology Business Incubator (T-TBI) to nurture the young student entrepreneurs in order to set up an entrepreneurial eco system in the campus. This venture deals with establishing functions to support and promote innovative ideas within the campus & also to aim at product development in Applet applications, Consumer electronics, Robotics, Energy systems, Mechatronics, Instrumentation etc.

During the Official launch of BMC technologies; four new products developed by the student Entrepreneur's were released. The products are available in the consumer market, which includes (i) 7 Watt LED Bulbs; (ii) Fully Automated Home Security System; (iii) Automatic Bell (iv) Water Pump Auto Actuator, and (v) BMC LED Panel lights.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

### 3.2.2 Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship during the last five years

**Response: 7**

#### 3.2.2.1 Total number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR) and entrepreneurship year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
3	2	2	0	0

File Description	Document
Report of the event	<a href="#">View Document</a>
List of workshops/seminars during last 5 years	<a href="#">View Document</a>

### 3.3 Research Publications and Awards

<b>3.3.1 Number of Ph.Ds registered per eligible teacher during the last five years</b>	
<b>Response:</b> 3	
<b>3.3.1.1 How many Ph.Ds registered per eligible teacher within last five years</b>	
Response: 9	
<b>3.3.1.2 Number of teachers recognized as guides during the last five years</b>	
Response: 3	
<b>File Description</b>	<b>Document</b>
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
URL to the research page on HEI website	<a href="#">View Document</a>

<b>3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the last five years</b>				
<b>Response:</b> 0.33				
<b>3.3.2.1 Number of research papers in the Journals notified on UGC website during the last five years.</b>				
2018-19	2017-18	2016-17	2015-16	2014-15
20	1	2	8	3
<b>File Description</b>		<b>Document</b>		
List of research papers by title, author, department, name and year of publication		<a href="#">View Document</a>		
Any additional information		<a href="#">View Document</a>		

<b>3.3.3 Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years</b>
<b>Response:</b> 0.97
<b>3.3.3.1 Total number of books and chapters in edited volumes/books published and papers in</b>



**national/ international conference proceedings year-wise during last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
19	17	34	11	19

File Description	Document
List books and chapters edited volumes/ books published	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**3.4 Extension Activities**

**3.4.1 Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the last five years.**

**Response:**

Our institution ensures that the stakeholders in the education sector are not only required to nurture the students academically, but also nurture them holistically, thus preparing our students for their future and mend them to tackle any of life's uncertainties. The aim of holistic learning is to connect the mind, body, and spirit. This method is through life skills training that are required for personal growth and successful living is what makes students confident and progressive thinkers. In order to ensure that the students achieve holistic development, we offer a set of programs such as **National Service Scheme (NSS)** unit, Physical education activities, Innovation and Entrepreneurship Development Cell (IEDC) under the KTU. Counseling Cell functions in our college to facilitate wise choices and decisions and to promote healthy mindset and helps *students* to work constructively toward life/career planning. The objectives of NSS are to make the students responsible and productive citizens of the country. NSS organizes activities such as:

- **Blood donation Camp**
- **Traffic rule awareness**
- **Swachh bharat abhiyan**
- **Tree plantation**
- **Clean campus**

Also in the past two floods faced by Kerala, our students and faculty have actively coordinated the **flood relief activities** and collected relief material and funds and distributed it properly. Every year our college organizes activities for the welfare of the people in and around our neighborhood community. The faculty and students of our institution usually celebrate days of national importance such as Republic day, Independence day, remembrance days etc to make our students aware about the history and culture of our nation.



File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

### 3.4.2 Number of awards and recognitions received for extension activities from government/ government recognised bodies during the last five years

**Response:** 14

#### 3.4.2.1 Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.

2018-19	2017-18	2016-17	2015-16	2014-15
4	6	4	0	0

File Description	Document
Number of awards for extension activities in last 5 year	<a href="#">View Document</a>
e-copy of the award letters	<a href="#">View Document</a>

### 3.4.3 Number of extension and outreach Programmes conducted by the institution through NSS/ NCC/ Red Cross/ YRC etc., ( including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. ) and / or those organised in collaboration with industry, community and NGOs during the last five years.

**Response:** 43

#### 3.4.3.1 Number of extension and outreach Programmes conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
9	17	8	3	6

File Description	Document
Reports of the event organized	<a href="#">View Document</a>
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.4.4 Average percentage of students participating in extension activities at 3.4.3. above during last five years

**Response:** 73.29

#### 3.4.4.1 Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations such as Swachh Bharat, AIDs awareness, Gender issue etc. year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
712	1282	530	208	500

File Description	Document
Report of the event	<a href="#">View Document</a>
Average percentage of students participating in extension activities with Govt or NGO etc	<a href="#">View Document</a>

## 3.5 Collaboration

### 3.5.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship per year

**Response:** 82

#### 3.5.1.1 Number of Collaborative activities for research, Faculty exchange, Student exchange/ internship year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
39	35	8	0	0

File Description	Document
e-copies of related Document	<a href="#">View Document</a>
Details of Collaborative activities with institutions/industries for research, Faculty exchange, Student exchange/ internship	<a href="#">View Document</a>

### 3.5.2 Number of functional MoUs with institutions, other universities, industries, corporate houses etc. during the last five years

**Response:** 22

#### 3.5.2.1 Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
13	4	2	0	3

File Description	Document
e-Copies of the MoUs with institution/ industry/corporate houses	<a href="#">View Document</a>
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years	<a href="#">View Document</a>

## Criterion 4 - Infrastructure and Learning Resources

### 4.1 Physical Facilities

**4.1.1 The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.**

**Response:**

The institution aims to provide world class infrastructure adequate for professional and personal growth of engineering students as well as to meet the academic and administrative requirements of the college. The infrastructure consists of various buildings including 30 classrooms, 38 laboratories, 7 seminar halls, auditorium, gym center, smart classrooms, library, health centre, restrooms, store, cafeteria etc, which are spread over an area of 27.1 acres. Sports facilities at our college are adequate for hosting of inter-college tournaments. The college also has indoor and outdoor facilities, for sports and cultural activities. A modern gym has been set up in the college campus to ensure a sound body and mind. Ramps are provided for physically disabled students. All buildings provided with fire-fighting equipment and first aid box. Library comprises of 27626 books, 50 journals with 656 sq.m library area. Rare books collection in the library enables students and faculties to access books which are difficult to find from other sources. The Library is using commercial software LIBSOFT for automation of Library Services. Institute has a rich IT infrastructure and it is regularly updated. The institute has 385 computers with 50Mbps internet connectivity to fulfill the academic and research needs of the institute. The computers and their accessories are maintained by technical staff in labs. To ensure hassle free and safe transportation to staff and students, the college buses are plying to and from from Kollam, Kottarakara, Mavelikkara, Chathannoor, Kayamkulam, Chavara, Anchalumood, Pathanapuram, Adoor, Pandalam etc.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

**4.1.2 The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga etc.**

**Response:**

Sports facilities can truly expand opportunities, impact the on-campus culture, and encourage healthy habits on a college campus. Though academic curriculum keeps them busy in learning and achieving a job, the importance of sports in helping them to have a good mental and physical health is undeniable. Sports play a pivotal role in shaping one's personality and maintaining good health. BMCE specially developed a sports environment in that matches all standards and gives a truly competitive experience to all our students. There are multiple sport facilities to keep our students engaged and physically fit.

The college has adequate sports and games, gymnasium, yoga center etc. and cultural activities to promote to the physical development of the students. Indoor games facilities include Chess, Carroms and Badminton. Large outdoor playing courts for sports like Volleyball, Basketball, Cricket, Football, and

Kabaddi were established for the students to participate in the game of their choice. A full time physical director guides the students in various sports activities. In order to ensure sound health and fitness, college provides Gymnasium facility. Every year intra and inter-college competitions are conducted to bring up the hidden talents of the students. An annual athletic meet is conducted every year to review their athletic abilities.

BMCE is aimed at promoting cultural interaction by organizing events and cultural fests every year, namely MALHAR and AURA. The fests are aimed at promoting innovative and creative blend of art, culture and technology. Yoga training was conducted for the benefit of students for achieving increased flexibility, muscle strength, improved respiration, energy and vitality, and also for maintaining a balanced metabolism. Yoga day is celebrated every year to create awareness among the students and faculty members.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

#### 4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)

**Response:** 18.92

##### 4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 7

File Description	Document
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	<a href="#">View Document</a>
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

#### 4.1.4 Average percentage of expenditure, excluding salary for infrastructure augmentation during last five years(INR in Lakhs)

**Response:** 12.34

##### 4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
17.32	9.67	34.1	54.65	115.53

File Description	Document
Upload Details of budget allocation, excluding salary during the last five years (Data Template)	<a href="#">View Document</a>
Upload audited utilization statements	<a href="#">View Document</a>

## 4.2 Library as a Learning Resource

### 4.2.1 Library is automated using Integrated Library Management System (ILMS)

#### Response:

Our college library is fully automated with an integrated window based, multi-user, menu driven Library management Software package –LIBSOFT. All library routines like book Accession, Membership, Book issue, Book return, Book renew, Book reservation, Information retrieval, Journal accession, Journal indexing and high level documentation services like generating reports, Barcode printing facility are possible in a user friendly manner.

Our college library also facilitates DELNET database which has a network of about 6,300 libraries providing access to more than 79 lakh full text documents including e-books, e-articles and e-journals. It provides facilities for subscribing to various Indian and foreign periodicals in different disciplines. It also provides access to the ‘World ebook library’ with nearly 30 lakh e-books. It also provides access to more than three crore catalogue records of books, journals, articles, etc. with the facility to borrow books and get copies of journal articles.

Our college library is registered member of National Digital Library, An initiative of MHRD, Govt. of India. NDL India is designed to hold content of any language and provides interface support for leading Indian languages. It is arranged to provide support for all academic levels including researchers and life-long learners, all disciplines, all popular form of access devices and differently-abled learners. It is being developed to help students to prepare for entrance and competitive examination, to enable people to learn and prepare from best practices from all over the world and to facilitate researchers to perform inter-linked exploration from multiple sources.

Our college library also facilitates Knimbus e-library platform. Knimbus curates and categorizes high quality content useful for students including 1000s of open access journals, e-books, videos, research theses and course documents. It provides access to more than 18,000 full text e-journals and more than 85,000 e-books.

File Description	Document
Upload any additional information	<a href="#">View Document</a>

**4.2.2 The institution has subscription for the following e-resources**

- 1.e-journals
- 2.e-ShodhSindhu
- 3.Shodhganga Membership
- 4.e-books
- 5.Databases
- 6.Remote access to e-resources

E. None of the above

D. Any 1 of the above

C. Any 2 of the above

B. Any 3 of the above

**Response:** A. Any 4 or more of the above

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership , Remote access to library resources, Web interface etc (Data Template)	<a href="#">View Document</a>

**4.2.3 Average annual expenditure for purchase of books/e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)**

**Response:** 3.64

**4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e- journals year wise during last five years (INR in Lakhs)**

2018-19	2017-18	2016-17	2015-16	2014-15
1.43	0.24	0.45	5.6	10.5



File Description	Document
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the last five years (Data Template)	<a href="#">View Document</a>
Audited statements of accounts	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 4.2.4 Percentage per day usage of library by teachers and students during the last completed academic year

**Response:** 6.86

4.2.4.1 Number of teachers and students using library per day over last one year

Response: 60

File Description	Document
Details of library usage by teachers and students	<a href="#">View Document</a>

### 4.3 IT Infrastructure

#### 4.3.1 Institution frequently updates its IT facilities including Wi-Fi

**Response:**

The plans for infrastructural development are given top priority as the college realizes the correlation between adequate infrastructure and effective teaching – learning. The college has a well developed system for providing IT facilities to the users. Almost all the departments have LCD projectors, printers and scanners. The computers and printers of all the departments have software installed in them and the hardware is also maintained from time to time. There are 29 printers available in the college. The college website is monitored and updated from time to time by the IQAC cell of the college. The whole campus of the college has Wi-Fi facility with a speed of 10 mbps. Five Wi-Fi routers are available in the college. The college has two leased line connections for broadband. The BSNL broadband provides 10 Mbps speed and Sky Vision broadband provides 50 Mbps speed. Students are given limited accessibility to this facility. The internet usage is controlled using cyberoam firewall. The entire campus is monitored with CCTV facility including 17 Hik Vision DS-7216HGHI-E1 cameras. The college is facilitated with 385 computers that are accessible to the students as well as the teachers for academic and co curricular purposes. Printers are arranged in the office, staffrooms, library, exam branch and laboratories. Dedicated software for tracking books is available in the library. The library is equipped with 25 computers with internet connection which can be utilized by students for their academic purposes. Software for entering the teaching and students records is available in the college. Teachers, students and parents have access to this software. Students and their parents can view internal marks and attendance using this software. Effective utilization of infrastructure is ensured through appointment of adequate and well qualified lab technicians/system administrator.



File Description	Document
Upload any additional information	<a href="#">View Document</a>

#### 4.3.2 Student - Computer ratio (Data for the latest completed academic year)

**Response:** 2.3

File Description	Document
Upload any additional information	<a href="#">View Document</a>

#### 4.3.3 Bandwidth of internet connection in the Institution

**E. < 05 MBPS**

**D. 05 MBPS – 10 MBPS**

**C. 10 MBPS – 30 MBPS**

**B. 30 MBPS – 50 MBPS**

**Response:** A. 750 MBPS

File Description	Document
Upload any additional Information	<a href="#">View Document</a>
Details of available bandwidth of internet connection in the Institution	<a href="#">View Document</a>

### 4.4 Maintenance of Campus Infrastructure

**4.4.1 Average percentage of expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the last five years(INR in Lakhs)**

**Response:** 39.71

**4.4.1.1 Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component year-wise during the last five years (INR in lakhs)**

2018-19	2017-18	2016-17	2015-16	2014-15
187.36	204.13	204.42	89.5	69.3

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	<a href="#">View Document</a>
Audited statements of accounts	<a href="#">View Document</a>

#### **4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.**

##### **Response:**

The college has a well established system for maintaining and utilizing all the facilities. Each department is asked to give an annual budget estimate to upgrade and to maintain the existing facilities available in the laboratories and workshop. The budget is monitored periodically by Management, Principal and HODs in the review meetings. As a policy, faculty members, staff, lab assistants, drivers and other service personnel are given responsibility to maintain the equipments under their supervision and report if additional maintenance is required. College has employed staff for maintaining a beautiful garden in the college campus. For improving the physical ambience of the campus, several initiatives are taken as per necessity like painting and whitewashing of building and labs, ground-men for maintaining grounds, lawns and upkeep of plants. The college has signed Annual Maintenance Contracts with suppliers and companies for the repair and maintenance of some equipment. All buildings provided with fire-fighting equipment and first aid box.

##### **Classrooms and Seminar halls**

At the beginning of each semester all the facilities in the classrooms are inspected for maintenance. The cleaning of the classrooms and seminar halls is done regularly and monitored heads of the departments. In case of any damage to the projector, internet or the audio systems, the advisor brings it to the notice of the HOD. The follow up is done by the respective head of the department for necessary corrective action. Maintenance to furniture is done periodically.

##### **Library**

Books are issued to the students and faculty members on producing the library card for a period of two weeks. The books are to be returned before the due date. If books are lost, then the borrower has to replace the book or pay the fine prescribed by the librarian. Stock rectification of library books, periodicals and reference books, re-binding of library books and binding of journals into back volumes are done periodically. Computers are provided to students for accessing e-books and journals. They are periodically checked and serviced. The reference books, rare books and journals are displayed properly for easy access.

##### **Laboratories**

Laboratory inspection is done at the beginning of each semester. The concerned faculty has to submit the requirements for the upcoming semester as per the curriculum. The status and working condition of the equipments is checked and verified. If some maintenance is required, the lab-in-charge reports it to the head of the department. The respective supplier or manufacturer of the equipment is contacted for

maintenance. The verification of lab equipments is done by the technical staff and lab-in-charge after completion of laboratory classes. If any damages are found, the staff reports it and records in the register. Periodic maintenance is done by regular cleaning of the lab spaces.

### Computers

For computers and networks, the manufacturers provide maintenance under warranty for a specific period. After warranty, in house IT team provides hardware and software support. Infrastructure related problems are resolved promptly by the maintenance staff. Computers are always kept updated with the latest software to cater to the needs of the students. The computers and their accessories are maintained by technical staff in labs. Periodic maintenance is done by software updates and antivirus updates.

### Sports

Under the guidance of physical instructor proper maintenance is being done for the sports equipments. Students are permitted to play after class hours and to practice for any competition. Students are permitted to utilize and take sports material with prior permission from the Physical Director. In case of any damage observed, the same is recorded in the register pending further action. The gym facility can be used by students on payment of membership fee. The gym is maintained properly by the sports committee headed by the physical education director. Any student responsible for damages to the gym equipments is liable to pay fine.

### Transport

The institution provides bus facilities for students and staffs plying from different locations. A separate parking facility and bus shed is available for college buses. The driver and conductor of the bus are responsible for cleaning and maintenance of the vehicle.

File Description	Document
Upload any additional information	<a href="#">View Document</a>

## Criterion 5 - Student Support and Progression

### 5.1 Student Support

#### 5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during last five years

**Response:** 30.64

##### 5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
191	209	278	315	417

#### File Description

#### Document

upload self attested letter with the list of students sanctioned scholarship

[View Document](#)

Upload any additional information Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years (Data Template)

[View Document](#)

#### 5.1.2 Average percentage of students benefitted by scholarships, freeships etc. provided by the institution / non- government agencies during the last five years

**Response:** 20.34

##### 5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution / non- government agencies year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
263	266	323	20	14

#### File Description

#### Document

Upload any additional information

[View Document](#)

Number of students benefited by scholarships and freeships institution / non- government agencies in last 5 years (Date Template)

[View Document](#)

**5.1.3 Capacity building and skills enhancement initiatives taken by the institution include the following**

1. Soft skills
2. Language and communication skills
3. Life skills (Yoga, physical fitness, health and hygiene)
4. ICT/computing skills

**E. None of the above**

**D. 1 of the above**

**C. 2 of the above**

**B. 3 of the above**

**Response:** A. All of the above

File Description	Document
Details of capability building and skills enhancement initiatives (Data Template)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Link to Institutional website	<a href="#">View Document</a>

**5.1.4 Average percentage of students benefitted by guidance for competitive examinations and career counselling offered by the Institution during the last five years**

**Response:** 4.59

**5.1.4.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years**

2018-19	2017-18	2016-17	2015-16	2014-15
68	17	44	34	41

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 5.1.5 The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases

1. Implementation of guidelines of statutory/regulatory bodies
2. Organisation wide awareness and undertakings on policies with zero tolerance
3. Mechanisms for submission of online/offline students' grievances
4. Timely redressal of the grievances through appropriate committees

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

**Response:** A. All of the above

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	<a href="#">View Document</a>
Details of student grievances including sexual harassment and ragging cases	<a href="#">View Document</a>

## 5.2 Student Progression

### 5.2.1 Average percentage of placement of outgoing students during the last five years

**Response:** 17.6

#### 5.2.1.1 Number of outgoing students placed year - wise during the last five years.

2018-19	2017-18	2016-17	2015-16	2014-15
68	17	44	34	41

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Self attested list of students placed	<a href="#">View Document</a>
Details of student placement during the last five years (Data Template)	<a href="#">View Document</a>

### 5.2.2 Average percentage of students progressing to higher education during the last five years

**Response:** 25.35

#### 5.2.2.1 Number of outgoing student progression to higher education

Response: 55

File Description	Document
Upload supporting data for student/alumni	<a href="#">View Document</a>
Details of student progression to higher education (Data Template)	<a href="#">View Document</a>

### 5.2.3 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT/JAM/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

**Response:** 32.24

#### 5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, etc.)) year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
0	5	7	1	10

#### 5.2.3.2 Number of students appearing in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT,GRE/ TOFEL/ Civil Services/ State government examinations) year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
5	15	17	5	15

File Description	Document
Upload supporting data for the same	<a href="#">View Document</a>
Number of students qualifying in state/ national/ international level examinations during the last five years (Data Template)	<a href="#">View Document</a>

### 5.3 Student Participation and Activities

**5.3.1 Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national / international level (award for a team event should be counted as one) during the last five years.**

**Response: 1**

**5.3.1.1 Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national / international level (award for a team event should be counted as one) year-wise during the last five years.**

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	1	0

File Description	Document
Number of awards/medals for outstanding performance in sports/cultural activities at university/state/ national/international level during the last five year	<a href="#">View Document</a>
e-copies of award letters and certificates	<a href="#">View Document</a>

**5.3.2 Institution facilitates students' representation and engagement in various administrative, co-curricular and extracurricular activities following duly established processes and norms (student council, students representation on various bodies)**

**Response:**



The student council of BMCE comprises of class representatives from all classes. The goal of the student council provides a common platform for organizing co-curricular and extra-curricular activities. It is responsible for all the technical, cultural, literary and sports activities organized in the college.

### **Arts & Sports Committee**

The arts and sports committee consists of members elected from the student council. A domain, co-domain and a group of members from each branch of final year students is elected for the smooth conduct of arts and sports fests.

### **Class Committee**

- Class Committee for a B.Tech/M.Tech class shall comprise of a senior faculty who does not handle any course for the class as Chairman, faculty Advisor of the class and all the faculty members engaging different courses and 2 student representatives from the class –one at a comparatively high academic level and the other at an average level. The faculty advisor concerned shall be the Convener of this committee.

### **Course Committee**

- In the case of common courses for B.Tech, a course committee has to be constituted by the Principal for each course. The chairman shall be a senior faculty member not offering the course. All faculty members handling the course and 4 student representatives among different classes shall be members.

The course and class committees shall meet at least twice in a semester. These committees shall monitor the conduct of the course, adherence to the course plan, time schedule, completion of the syllabus, standards of internal tests and evaluation process. These committees will also address the difficulties faced by students and will take suitable remedial actions, if required. At the end of the semester, the committee should meet without the student representatives to review the conduct of the course and finalize the internal assessment marks and approve them.

### **Women Cell**

- The College has established a Women Cell in the college campus for the female staff and students, to enhance understanding of issues related to women and to make the campus a safe place for them.
- Aiming at intellectual and social up-lifting of the female students, the cell stands for facilitating women empowerment through guest lectures, seminars, awareness programs life skill training programs, entrepreneur training and other welfare activities.

### **SC/ST Committee**

- The SC/ST committee in the college promotes the special interest of students in the reserved category and to provide special inputs in areas where the students experience difficulty.
- Committee often meets the students and faculties belonging to SC/ST communities, to understand their problems and take necessary action and/or renders them necessary advice/help to resolve the matter and also counsel the students to help them overcome inferiority complex related to interaction with fellow students and personal grooming, etc.

- The committee also creates awareness among the SC/ST students regarding the various Government and Non-Government scholarship schemes.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

### 5.3.3 Average number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions)

**Response:** 11.8

#### 5.3.3.1 Number of sports and cultural events/competitions in which students of the Institution participated year-wise during last five years

2018-19	2017-18	2016-17	2015-16	2014-15
14	14	14	11	6

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>
Number of sports and cultural events/competitions in which students of the Institution participated during last five years (organised by the institution/other institutions (Data Template)	<a href="#">View Document</a>

## 5.4 Alumni Engagement

### 5.4.1 There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

**Response:**

Our institution is having a well organized and active alumni association. The association was registered under “Travancore/Cochin Literary, scientific and charitable societies Act (Act XII of 1955)” with register number 152/07, signed under Kollam district registrar on the date 14th of March 2007. In the year 2015, a UAE chapter of BMCE alumni association was formed. The objective of the alumni association is to establish a link between alumni, faculty, staff and students of the institution and to help interaction between alumni and current students. The alumni interacts with the current students, through visits and

various programmes, giving information about industrial opportunities, emerging areas and employment opportunities. The alumni also aim to render financial aid for the needy and deserving students.

For the past 12 years meetings were successfully held on behalf of alumni association BMCE. In the year 2016, 2017, 2018 and 2019, UAE alumni chapter meet has also been held. Every year the final year pass out alumni are contributing an amount to the association, as subscription fees for the welfare activities. Apart from that, our association is focusing on well being of the members of the alumni and the general improvement of the institution. Every year Soft Skill training programs are conducted for the final year students, under the banner of alumni association. The main aims of the programs are to prepare the students for group discussions and placement interviews. In the years 2017-18, on behalf of alumni association, placement cell has arranged Soft Skill development program for the final year students. The Resource person was Ms. Mary Amritha, Project Manager, UST global, and Trivandrum. A motivational program was conducted with Dr. G Madhavan Nair as the chief guest in the year 2015. The program was a great success. Apart from that BMC UAE chapter has given a helping hand to one of our family member who was suffering from blood cancer. They made the effort to collect an amount of 2 lakh rupees and handed over to the parents.

File Description	Document
Upload any additional information	<a href="#">View Document</a>

#### 5.4.2 Alumni contribution during the last five years (INR in lakhs)

E. <1 Lakhs

D. 1 Lakhs - 3 Lakhs

C. 3 Lakhs - 4 Lakhs

B. 4 Lakhs - 5 Lakhs

**Response:** D. 1 Lakhs - 3 Lakhs

File Description	Document
Upload any additional information	<a href="#">View Document</a>

## Criterion 6 - Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

#### 6.1.1 The governance of the institution is reflective of and in tune with the vision and mission of the institution

##### Response:

##### Vision

To become an icon of technical education that creates responsible professionals with social commitment.

##### Mission

To provide the best learning with individual attention to students by imparting ICT enabled pedagogy, critical thinking skills and problem-solving to inspire lifelong learning with strict adherence to the principles of academic integrity and transform them into technically competent engineers.

##### Core Values:

- Leadership
- Honesty and Integrity
- Freedom of thought and expression
- Excellence
- Respect and trust
- Encouragement
- Inter-departmental collaboration
- Social responsibility

##### Nature of Governance

The success story of BMCE has been brought to reality due to the relentless efforts of many hands that came forward to build this institution brick by brick. BMCE is a project of Dr. C. T. Eapen Trust under Malankara Orthodox Syrian Church. It was the vision and relentless efforts of the Late H. H. Moran Mar Baselios Marthoma Mathews II that helped the Institution become a centre of excellence. The Management is currently headed by H.H Marthoma Paulose II, Catholicos and Malankara Metropolitan of Malankara Orthodox Syrian Church. The college is currently managed by His Grace Zachariah Mar Anthonios.

The institution has a governing body with representation from management, all departments and chairman as its head. The governing body gives the freedom and flexibility to the head of the institution to lead all the academics of the college. The institute has six engineering departments headed by experienced and qualified academicians. Every 20 students from a class are assigned with a mentor for effective monitoring. Course committees and class committees are formed with two faculty members and four students, in each committee, as per KTU. The requirements for the academics are conveyed to the principal by the head of the department and the principal presents it to the authorities. The academics is taken care of by the various bodies operating in the college like the advisory committee, exam cell committee, grievance redressal committee, anti-ragging committee, discipline committee, IQAC etc. Each committee works in

accordance with the rules and regulations laid down by the principal. Both teaching and non-teaching staff assists in examination process, placement and training, and co-curricular activities. Performance of teaching faculties is evaluated using the feedback collected from students. The institution also encourages the faculty members and students to participate in seminars, workshops, conferences and faculty development programmes. Students are motivated to undergo projects and internships in various industries. The institution insists the faculties to incorporate ICT enabled teaching methodologies for different courses. The powerpoint presentations for all courses are reviewed by the heads of departments and shared with the students. The institution emphasizes on social commitment and professional ethics by conducting awareness programs and activities.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

### 6.1.2 The effective leadership is visible in various institutional practices such as decentralization and participative management

#### Response:

The Institution has the culture of decentralized governance system with well-defined inter-relationships. Institute delegates adequate and systematized authority to the departments to work towards decentralized governance system. The decentralization and transparency is practiced by the management through the constitution of **governing body** which is headed by the chairman of the institution. There are various committees involving faculty which are constituted to institutional activities. The academic committees are **Class committees, Course committees, Placement cell, Exam cell, IQAC, Alumni association, Anti-ragging committee, Women cell, Parent teacher association and Grievance redressal committee**. The co-curricular committees are **cultural and sports committee, NSS units and Department associations**. The departments are encouraged to arrange various activities with the support of management for the benefit of students and faculty. College is keen on the teachers' involvement and participation for improvement of effectiveness and efficiency of the teaching learning process. The Institution has always been in favor of participative management. The suggestions by teachers and students in the class and course committee meetings are discussed in the **department meetings**, and conveyed to the principal and the management. The relevant suggestions are implemented for college development.

All department heads are invited to submit **budget proposals** for every academic year. These budget proposals are formulated after lengthy discussions at department meetings organized by the head of the department. They arrive on a conclusive summary after discussing the essential requirements to fulfill the needs of the department including the budget required for student development activities like guest lectures, seminars, workshops and conferences. Along with this, lab-in charges are also asked to come up with a proposal of their requirements including purchase of new equipment, repairs and maintenances, service, training and up gradation. All proposals from various persons in charge, faculty and students are discussed in department meetings, reviewed and forwarded to the reporting authority for further processing.

The **finance officer** prepares and consolidates all the budget proposals with the advice of principal and management. A final proposed budget including all anticipated income and expenditure is prepared by the accounts department and presented to the governing body for approval. Any objections or concerns by the members are discussed, recorded and decisions with majority of acceptance are made for making changes in the proposals. Approvals of budgets are communicated to all individuals who proposed them, through proper channels. Accounts department releases funds as per requirement. Through effective decentralization, the institution practices successful delegation and enhances the productivity of the college. Through participative management, each person in-charge handles their allotted activity and ensures its complete and constructive delivery.

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>

## 6.2 Strategy Development and Deployment

### 6.2.1 The institutional Strategic / Perspective plan is effectively deployed

#### Response:

The institute has got various strategic plans for implementation and achieves excellence in all aspects such as academic, placements and research. In order to attain **global standard in Engineering**, the management council has a strategic plan which includes getting **NAAC accreditation by 2020**.

One of the strategic plans was attaining **ISO certification** which was initiated by the IQAC cell of the institution to improve overall quality of teaching learning process. Quality improvement includes personality development of students, faculty development, research and activities and industry collaborations. **ISO 9001:2015 certification** was received in the year 2018 from the **Ministry of Electronics and Information Technology, Government of India**. The scope of quality management covers Admission, Instructional Delivery, Examination, Award of Degree as per the Curriculum and Syllabus given By APJ Abdul Kalam University and guidelines of AICTE and also Co-curricular activities, Administration and other supporting services for B. Tech (CSE, EEE, ECE, ME, AEI) and M. Tech (CSE) programmes. The scope also includes Startup and Entrepreneurship Activities.

The quality of teaching learning process is also ensured through the university audit process. The Internal Quality Assurance Cell (IQAC) headed by the principal facilitates the audit process. Two internal audits and one external audit are conducted in every semester for verification of all academic documents. The audit report is submitted to the Dean (academics) for review.

The implementation of maintaining e-database for the academic processes like class attendance, assignment marks, and internal marks is carried out using the software called 'Assistant' procured by the institution. The Assistant database can be accessed by students and faculty. Teaching plan, time table, assignments, internal marks, internal marks, attendance, lab manuals and question banks were shared in the Assistant, for all the classes. In addition to the Assistant database, documents are also maintained in the

departments as directed by IQAC cell, such as faculty profiles, student database, teaching plans, time tables, attendance records, exam details, question banks and feedbacks from students. The university also has an e-governance portal with individual login credentials for faculties and students. The portal facilitates for students includes course registration, viewing attendance and internal marks, exam registration and revaluation requests for university examinations. The portal for faculties allows for assigning courses, entry of attendance and internal marks, and valuation of end semester answer scripts.

The institution works with a focus on the continuous improvement of the physical and academic ambience and infrastructure of the college both qualitatively and quantitatively. The following are the key plans of the institution for the next five years:

1. Start more postgraduate and degree programmes
2. Receiving funds through research projects.
3. Provide more scholarships for economically and socially backward students.
4. Utilizing renewable sources of energy.

File Description	Document
strategic Plan and deployment documents on the website	<a href="#">View Document</a>

### **6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, etc.**

#### **Response:**

Our institution is managed by the Dr. C T Eapen Trust under Malankara Orthodox Syrian Church. The trust was founded by Dr. C. T. Eapen, a philanthropist and educational visionary has already set its landmark in the fields of education, medical mission and other philanthropic and spiritual activities. The institution started functioning in 2002 with the monumental objective of promoting academic excellence and competence in students, especially in the fast-growing global domain of Engineering and Technology.

#### **Governing Body**

The governing body of the college consists of 16 members including chairman and manager. Other members are government representatives, university representatives, former principals, industrialists, businessmen etc. Principal is the academic head of the institution and the member secretary of the governing body.

#### **Administrative Setup**

The Management is currently headed by H.H. Baselios Marthoma Paulose II, Catholicos and Malankara Metropolitan of Malankara Orthodox Syrian Church. He is also the chairman of the governing body,



directly overlooking all the activities of the institution. The college is currently managed by H.G. Zachariah Mar Anthonios Metropolitan, the head of the Kollam diocese. Rev. Fr. Thomas Varghese is the administrator of the institution. The administrator coordinates all the administrative activities including recruitment of faculties and admission of students. He is also responsible for the infrastructure maintenance, purchases, developmental activities and day-to-day functioning of the institution. Principal looks after the academic activities and the office superintendent is the head of the administrative office controlling the affairs related to students, staff and university. The finance officer and the accountant are responsible for all financial transactions and maintenance of financial records.

### **Appointment**

The requirement for staff is reported by the heads of departments to the principal. The principal discusses with the administrator and calls for applications through newspaper advertisement and institution website. The eligible candidates are shortlisted from the applications received and they invited for personal interview. The interview committee constitutes principal, vice-principal, administrator and heads of departments. The selected candidates will be under probation for one year after appointment.

### **IQAC**

The Institute has set up an internal quality assurance cell (IQAC), headed by the principal, including representatives of different groups of stakeholders. The IQAC cell has been constituted on 3rd October 2019 to orient the institution towards outcome based education. Quality measures are initiated through IQAC at periodic intervals. The various strategies developed for academic/administrative activities include arranging bridge courses and orientation courses for freshers, identifying slow learners and fast learners, remedial classes for slow learners, zeroth hour test for improving student performance etc. IQAC also ensures career guidance and counselling programmes, aptitude test and placement trainings.

### **Grievance Redressal Committee**

The grievance redressal cell in the college addresses complaints of students and faculty. Grievance box is installed in front of the administrative block in which students can put in writing their grievances and suggestions for improving the academic/administration of the college.

### **Service rules**

Promotion is given to eligible staff as per AICTE norms. Maternity and other leaves are allowed as per govt norms.

<b>File Description</b>	<b>Document</b>
Upload any additional information	<a href="#">View Document</a>
Paste link for additional information	<a href="#">View Document</a>
Link to Organogram of the Institution webpage	<a href="#">View Document</a>

### **6.2.3 Implementation of e-governance in areas of operation**



1. Administration
2. Finance and Accounts
3. Student Admission and Support
4. Examination

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

**Response:** A. All of the above

File Description	Document
Screen shots of user interfaces	<a href="#">View Document</a>
ERP (Enterprise Resource Planning) Document	<a href="#">View Document</a>
Details of implementation of e-governance in areas of operation, Administration etc	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 6.3 Faculty Empowerment Strategies

#### 6.3.1 The institution has effective welfare measures for teaching and non-teaching staff

**Response:**

An institution is only as good as its staff. This means that the welfare of the institution depends on the welfare of the staff. Our institution understands this and appreciates the efforts of the staff. It recognizes their hard work and acknowledges their needs and requirements. As a result, the institution has a very strong welfare policy for its teaching and non-teaching staffs.

Faculty Development Programs (FDP), conferences, workshops and national seminars are organized by the institution. The faculties are encouraged to attend various faculty development activities throughout the academic year. Performance of both teaching and non-teaching staffs who have not completed one year experience are evaluated by the institution in the beginning of the academic year.

For teaching staffs, financial support is provided for attending conferences, workshops, seminars and industrial visits. All the staffs are insured through group insurance policy by United India Insurance Company Ltd. EPF contribution is facilitated for teaching and non teaching staffs as per government norms.

Training and Study Leave (TSL) is approved for the faculty who go for doctoral programs or career

advance schemes. The institution encourages the faculty who are pursuing research and publishing papers in peer reviewed journals. The teaching and non teaching faculty members are eligible for availing casual leave of 15 days per year. Vacation leave of 30 days are provided at the end of an academic year for regular faculty. Maternity leave is provided to the woman employees, for a period of 180 days.

All teaching and non teaching staff is eligible for transport on the college bus. For other official purpose, the staffs concerned should inform the transport coordinator and principal in advance, so that he can retain the driver and ensure that vehicle is kept ready. Canteen facility and medical facility is also being provided for all teaching and non teaching staffs.

File Description	Document
Upload any additional information	<a href="#">View Document</a>

### 6.3.2 Average percentage of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the last five years

**Response:** 4.51

#### 6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
4	6	3	2	8

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Details of teachers provided with financial support to attend conference, workshops etc during the last five years	<a href="#">View Document</a>

### 6.3.3 Average number of professional development /administrative training programs organized by the institution for teaching and non teaching staff during the last five years

**Response:** 1.2

#### 6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
0	2	3	1	0

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff	<a href="#">View Document</a>

#### 6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course ).

Response: 27.3

##### 6.3.4.1 Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
51	26	27	13	9

File Description	Document
Upload any additional information	<a href="#">View Document</a>
Details of teachers attending professional development programmes during the last five years	<a href="#">View Document</a>

#### 6.3.5 Institutions Performance Appraisal System for teaching and non-teaching staff

Response:

High quality teaching is essential for improving student outcomes and reducing gaps in student achievement. The Performance Appraisal System provides teachers with meaningful appraisals that encourage professional growth and learning. The system is designed to foster faculty development and to identify opportunities for the additional support wherever required.

The Institute is following the appraisal scheme suggested by AICTE viz. Performance Based Appraisal System (PBAS). In this scheme, the performances are classified into three major categories.

(i)Teaching, Learning and Evaluation related activities

(ii)Co-Curricular, Extension and Professional Development related activities

**(iii) Research Publications and Academic Contributions**

At the end of each academic year, the data pertaining to the above categories are collected from each faculty member in the format suggested by AICTE. A self appraisal form is filled by each faculty, where in he/she provides the necessary information of his/her performance and contribution in all the spheres of activities assigned duly to him/her by the department or by college. The HOD gives their remarks on the performance of the faculty member. Based on the data collected, API (Academic Performance Indices) scores are calculated for each of the three categories. The Principal in consultation with senior professors fix certain minimum API scores to be achieved by the faculty members in the three categories. These scores are used for the award of career advancements to faculty members and for promotion to next higher position. This also inspires the other faculties. The faculty member is free to raise a grievance which will be duly addressed and actions to be taken in case if he/she is not satisfied with the decisions of the institution.

Feedback is collected from the students for each of the courses attended by them, in the beginning and middle of every semester. A team consisting of the principal, head of department and senior professor goes through the feedback forms and suggest suitable measures to improve the teaching-learning process. For non-teaching staff feedback is collected from each department and based on that appraisals are given.

File Description	Document
Upload any additional information	<a href="#">View Document</a>

**6.4 Financial Management and Resource Mobilization****6.4.1 Institution conducts internal and external financial audits regularly****Response:**

The internal auditor appointed by the college management conducts audits quarterly. Audit is conducted in accordance with Auditing standards generally accepted in India. The audit team visits the college and verifies all financial transactions with the supporting documents and approval of proper authority for each financial transaction. The financial transactions are accounted in Tally ERP by the college. The minor audit suggestions of internal auditor are compiled as per procedure.

Since ours is a government controlled self-financing college, 50% seats in the member college will be filled up by the Commissioner of Entrance Examination (CEE) from the rank list prepared. The source of income is verified with the list of CEE allotted students and management admitted students. Fee amount received from students and fee dues will be reconciled. Grants received from the government through scholarships are verified and checked.

Proper records of all the expenses are maintained. The auditors vouch payment with the approved supporting documents. Bank accounts are reconciled and bank confirmations are checked. Depreciation of fixed assets is calculated. Statutory dues payment like EPF, ESI, TDS and Professional Tax are paid before the due dates; salary payments with the salary statements are checked and any other statutory compliances required as per IT Act are verified.

External auditor appointed by the management conducts audit once in a year. Finalization of the account is completed in July/August and audited statements like Balance Sheet and Income & Expenditure Statement are prepared and duly signed by the chartered accountant. The finalized audit report is submitted by chartered accountant to the management.

File Description	Document
Upload any additional information	<a href="#">View Document</a>

#### 6.4.2 Funds / Grants received from non-government bodies, individuals, philanthropers during the last five years (not covered in Criterion III)

**Response:** 0.23

6.4.2.1 Total Grants received from non-government bodies, individuals, Philanthropers year wise during the last five years (INR in Lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0.23

File Description	Document
Details of Funds / Grants received from of the non-government bodies, individuals, Philanthropers during the last five years	<a href="#">View Document</a>
Annual statements of accounts	<a href="#">View Document</a>

#### 6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

**Response:**

The college has a well formulated financial policy which ensures effective and optimal utilization of finances for academic, administrative and development purpose which help ultimately in realizing the institute's vision and mission.

For the Institution, the resources of funds are:

- Tuition Fee collections from the students. All tuition fees are collected yearly
- Fee collections for the other services rendered to the students, e.g. Bus Fee
- Fines from the students, e.g. ID card loss, hall ticket loss, fee receipt loss, etc.
- Collections for workshops and skill enhancement activities in concerned departments.

Such collections from the students will be kept as fixed deposits in the college bank accounts for shorter periods i.e. for 30 days to 90 days. The short term deposits will be used for the monthly salaries of staff, campus maintenance, lab consumables, library books purchases, workshop expenses, events & club activities, faculty development and student skill development programs, admission process, etc.

The Institute has a well defined procedure to monitor effective and efficient utilization of available financial resources for infrastructure development and academic processes. Every year, the budget is prepared well in advance after taking into consideration the requirement of every Department. Each Department prepares the budget based on the requirement such as equipment, computer as well as consumable required for next academic session. Management puts up the budget in Governing Body meeting and after discussion and necessary corrections/modifications, Governing Body approves the budget. The Principal and the Head of Departments discuss the requirement and decide the priorities while allotting financial resources for various purposes. The Institute has standardized procedure for sanctioning of funds for various activities and also for settlement of advance and passing of bills for payment. The Management has given complete support to Principal for organization of various co-curricular & extracurricular activities like technical events, sponsoring of faculty & staff for various skill development programs, providing financial support for attending conferences, workshops, pursuance of higher education etc.

Financial audits are conducted by a chartered accountant every financial year to verify the compliance with established processes. Apart from this the college also provides financial assistance to student for participation at various national & state level cultural & Sports competition.

File Description	Document
Upload any additional information	<a href="#">View Document</a>

## 6.5 Internal Quality Assurance System

### 6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

#### Response:

The Institute has set up an internal quality assurance cell (IQAC), headed by the principal, including representatives of different groups of stakeholders. The IQAC cell has been constituted on 3rd October 2019 to orient the institution towards outcome based education. Quality measures are initiated through IQAC at periodic intervals. The various strategies are developed for academic/administrative activities in the institution. Various strategies include:

- Arranging bridge courses and orientation courses for freshers
- Identifying slow learners and fast learners
- Remedial classes for slow learners
- Zeroth hour test for improving student performance
- Conduct of centralized internal evaluation tests through proper question paper scrutiny
- Delivering lecture notes for all courses by concerned faculty members



- Question banks should be maintained and shared with students for every course
- Regulations for conduct of projects and seminar
- Training for newly inducted faculty members
- Faculty training for all teaching staff at the beginning of every academic year.
- Arranging regular seminars, workshops, FDPs on emerging areas for faculty members.
- Placement training on aptitude and soft skills.

Best practices that have been implemented are:

### **Practice – 1: Faculty quality improvement programmes**

The IQAC has initiated and organized several training programs for the faculty. They are encouraged to attend the Faculty development programs organized inside and outside the campus. The institute encourages the faculty members to participate and publish research papers in the international conferences. The college organizes motivational classes and teamwork training programmes for the faculty. Student feedbacks about the faculty are collected twice in every semester and consolidated report is communicated individually by the head of the department.

### **Practice –2: Advisory System**

Our institution and has a unique mentoring system which helps to address the issues and support the students to improve in academics. Every department has a department advisory committee to direct policies to excel students in academics and co-curricular activities. Every batch of 20 students is assigned to a mentor. The head of the department and the mentors have adequate participation in making decisions in academic processes. It is a process of creating a supporting relationship with faculty, parents and students aiming at comprehensive development of students and builds a better relationship and rapport with students. The mentors maintain a student record that includes academic as well as personal details of the students. Students are free to discuss their problems with the class mentors and provide the students with the maximum support. Results are analyzed to judge the performance of the students. Counselling and remedial measures are provided for the needy students to improve in weak areas. Parents are also well informed about various aspects of development of their ward through PTA meeting and SMS system.

<b>File Description</b>	<b>Document</b>
Upload any additional information	<a href="#">View Document</a>

**6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities ( For first cycle - Incremental improvements made for the preceding five years with regard to quality For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives )**

### **Response:**

BMCE aims to be a centre of excellence in professional education by establishing a system of quality

assurance, which would be on a continuous basis that will transform young talents into competent and socially committed professionals with global vision. In order to get better learning outcome and results, different means are utilized by the faculty members through IQAC.

Some of the initiatives of IQAC contributing in incremental improvements are:

1. Academic Committee
2. Continuing education and staff development
3. Entrepreneurship development
4. ISO certification
5. International conferences
6. Remedial classes
7. Students Welfare committee and grievance redressal committee
8. Anti-ragging committee
9. Zeroth hour test
10. Placement drives and training
11. Tutorial classes

IQAC sets the benchmark for various activities and processes. It monitors the process and measures the performance against the set benchmark through the Academic committee. Before commencement of the term, timetable coordinator of each department prepares timetable schedule for theory and practical subjects as per policies defined by IQAC. During the last five years there are incremental changes, both in the support from the institution, and academic results. The teaching, learning and evaluation activities in the institution are implemented according to the academic calendar, which is monitored by the department academic coordinator.

The institution has constituted several committees such as Course and Class committee, Timetable committee, Placement Cell, Discipline committee, Attendance committee, Departmental associations and Exam Cell. The formulation and implementation of the events and actions are assisted by these committees in 2017 onwards. The progress of the students is monitored by the dean academics, advisors and heads of departments through continuous assessment. The intended course outcomes are achieved by facilitating teaching, learning and assessment appropriately based on the course. Use of innovative and interactive teaching approaches like digital social learning platforms, NPTEL video lectures etc. are adopted by faculty members in teaching learning process. Question banks are prepared by all department faculty members and are available for students to understand the various patterns in which questions can appear for exam.

The institution conducts Zeroth hour test every alternative day, in order to improve the student quality and



learning process. Previous university questions are answered by the students for the test. This resulted in substantial reduction in the number of defaulter students. After the class test the faculty members are able to analyze the slow learners. The department head keeps a remedial register. Remedial classes are arranged to uplift the defaulters to a better level.

The institute took an initiation for getting ISO certification and got certified in 2018. International conferences technically sponsored by IEEE, Springer were organized. There is special Placement team that includes faculty members from all departments helps to enhance employability and placement readiness.

File Description	Document
Upload any additional information	<a href="#">View Document</a>

### 6.5.3 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements
2. Collaborative quality initiatives with other institution(s)
3. Participation in NIRF
4. any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

**Response:** C. 2 of the above

File Description	Document
Upload e-copies of the accreditations and certifications	<a href="#">View Document</a>
Upload details of Quality assurance initiatives of the institution	<a href="#">View Document</a>

## Criterion 7 - Institutional Values and Best Practices

### 7.1 Institutional Values and Social Responsibilities

#### 7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

##### Response:

Our institution provides various facilities such as safety and security measures, counseling and common room which are gender sensitized. This ensures a safe and secure environment in the campus.

#### Safety and Security

##### 1. Student Welfare Committee

Basic functions for the welfare of students include the following:

- Listening to their problems and understanding what is required for their development in any manner.
- Assisting the students in their learning process which includes not just academics but also the practical learning experience.
- Conducting periodic meetings to talk over student welfare.
- Various co-curricular activities, facilitating student interests are organized for personality development of students.
- Special coaching for slow learners is also organized.

##### 2. Fire Extinguisher

Fire extinguishers are extremely important as they are the most common means for fire protection. These are installed in the college campus for fire safety. In many cases they are a first line of defence and often contain or extinguish a fire, preventing costly damage. They are checked and serviced periodically.

##### 3. CCTV

CCTVs are installed in the college campus for safety purpose. This helps in monitoring student behavior and tracking individuals/vehicles entering/leaving the premises.

#### Counselling

The institution formed a counselling cell to monitor and improve the performance of students in academics. The counselling cell operates by involving faculty members of each department to identify the slow learners and provide extra motivational classes to improve their academic performance. The counselling cell is headed by Rev Fr. Dr. K. M. Koshy Vaidyan, Dean - Student Affairs. He plays a key role in helping the students understand and rectify their deficiencies.

#### Women Cell

The College has established a Women Cell for the female faculties and students, to enhance understanding of issues related to women and to make the college campus a safe place for them. With an aim of creating awareness of their rights and duties, the cell organizes seminars, talks and also addresses women issues and problems. It also provides a platform for women to share their experiences and views regarding their status in the society and suggests ways to improve and empower themselves.

### Common Room

The institution has established a spacious and comfortable common room for females on the ground floor main building of BMC. This space has been designed to give female students a place to relax, study, have informal discussions outside class hours. College common rooms are known for their special utility. During the break it reloads the overburdened brain, refreshes the tired mind and gives a real blessing for students.

File Description	Document
Link for specific facilities provided for women in terms of: a. Safety and security b. Counselling c. Common Rooms d. Day care center for young children e. Any other relevant information	<a href="#">View Document</a>
Link for annual gender sensitization action plan	<a href="#">View Document</a>

### 7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

- 1.Solar energy
- 2.Biogas plant
- 3.Wheeling to the Grid
- 4.Sensor-based energy conservation
- 5.Use of LED bulbs/ power efficient equipment

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

**Response:** C. 2 of the above

File Description	Document
Geotagged Photographs	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

### 7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- Solid waste management
- Liquid waste management
- Biomedical waste management
- E-waste management
- Waste recycling system
- Hazardous chemicals and radioactive waste management

#### Response:

Institute practices the waste management including solid waste management, liquid waste management and E-waste management.

#### Solid waste management

Institute practices the segregation of solid waste and its effective management in the campus. The collected waste is segregated at the source of the generation. The waste bins are placed separately for dry and wet waste at every corner of the corridor, wash rooms and common rooms. The dry waste bins are also placed in laboratories, library, classrooms, etc. The dry and wet waste is handed over to municipal waste collection agency for further treatment. Old newspapers, used papers and journal files, workshop scrap etc. are given for recycling to external agencies.

- Incineration – Incineration of waste materials converts the waste into ash and heat. Most of our college organic wastes are disposed by incinerating.
- Pits – Our College also uses a rubbish pit for solid waste disposal. This helps prevent contamination of water supplies and breeding of flies and rats which may spread disease to people in the community. A rubbish pit reduces unpleasant smells and removes household waste from sight. Rubbish collected is sorted before it is considered for the rubbish pit.
- Compost – Organic materials such as vegetable peelings, etc are used to make compost. Batteries and other toxic waste are avoided as these will contaminate the soil and water sources

#### Liquid waste management

Our college sewage consists mostly of grey water (from sinks, tubs, showers, dishwashers, and clothes washers), and black water (the water used to flush toilets, combined with the human waste that it flushes away); soaps and detergents which are connected to septic tank through outlet pipes. Lab liquid wastes are allowed to flow towards the garbage disposal around the college canteen. Labs don't contain harmful acids so that no particular waste treatment is necessary. Liquid Waste from the wash rooms is conveyed to the

separate soak pit.

### **E-waste management**

Due to advancement in technology, various types of electronic gadgets are being manufactured and marketed. These products become outdated after few months or years. Since these products contain some hazardous materials like lithium, lead, zinc, etc. improper disposal of these products is harmful for living beings. Therefore, management of E-waste is an important issue. E-waste management is done by collecting all the electronic waste generated in the institute premises at a central storage space allocated for the same and sold for intermediary outside the college. Old computers have been kept in an isolated room for disposal.

<b>File Description</b>	<b>Document</b>
Any other relevant information	<a href="#">View Document</a>
Link for Geotagged photographs of the facilities	<a href="#">View Document</a>

#### **7.1.4 Water conservation facilities available in the Institution:**

- 1. Rain water harvesting**
- 2. Borewell /Open well recharge**
- 3. Construction of tanks and bunds**
- 4. Waste water recycling**
- 5. Maintenance of water bodies and distribution system in the campus**

**E. None of the above**

**D.1 of the above**

**C. 2 of the above**

**B. 3 of the above**

**Response:** C. 2 of the above

<b>File Description</b>	<b>Document</b>
Geotagged photographs / videos of the facilities	<a href="#">View Document</a>

#### **7.1.5 Green campus initiatives include:**

- 1. Restricted entry of automobiles**
- 2. Use of Bicycles/ Battery powered vehicles**
- 3. Pedestrian Friendly pathways**

- 4. Ban on use of Plastic
- 5. landscaping with trees and plants

E. None of the above

D. 1 of the above

C. 2 of the above

B. 3 of the above

**Response:** Any 4 or All of the above

File Description	Document
Geotagged photos / videos of the facilities	<a href="#">View Document</a>

#### 7.1.6 Quality audits on environment and energy regularly undertaken by the Institution

- 1. Green audit
- 2. Energy audit
- 3. Environment audit
- 4. Clean and green campus recognitions / awards
- 5. Beyond the campus environmental promotion activities

E. None of the above

D.1 of the above

C. 2 of the above

B. 3 of the above

**Response:** D.1 of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	<a href="#">View Document</a>

#### 7.1.7 The Institution has disabled-friendly, barrier free environment

- 1. Built environment with ramps/lifts for easy access to classrooms.
- 2. Disabled-friendly washrooms
- 3. Signage including tactile path, lights, display boards and signposts
- 4. Assistive technology and facilities for persons with disabilities ( Divyangjan) accessible

**website, screen-reading software, mechanized equipment**  
**5.Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading**

**E. None of the above**

**D.1 of the above**

**C. 2 of the above**

**B. 3 of the above**

**Response:** D.1 of the above

File Description	Document
Geotagged photographs / videos of the facilities	<a href="#">View Document</a>

**7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).**

**Response:**

Our college, being a minority institution, strives at creating a harmonious campus culture which is an important to make sure that the students may concentrate on studying unobstructed in the campus. It is the key of creating a socialist harmonious society. As an important method of aesthetic education, art education plays an irreplaceable role in creating a harmonious campus. Developing art education and promoting the progress of cultural harmonization on campus make up the important part of creation of cultural harmony on the modern day campus. In lieu of this, we celebrate all festivals of all religions like Christmas, Onam, Ramzan, New Year etc ensuring the total participation of all students.

The task of a teacher has many dimensions.

- It involves the provision of a broad context of knowledge within which students can locate and understand the content of their more specific studies.
- It also involves the creation of a learning environment in which students are encouraged to think carefully and critically and express their thoughts; and in which they wish to confront and resolve difficulties rather than gloss over them
- It involves constantly monitoring and reflecting on the processes of teaching and student understanding and seeking to improve them.

At BMCE, the appointments of faculty members are done purely on the basis of the above qualities. We have faculties from different religion and region, working hand in hand to realize the vision of our institution. No priority what so ever is given to any community while considering appointments to various vacancies. Our college provides linguistic harmony whereby we have faculty members from different states in India. Our principal and two other faculties are native of Tamil Nadu. They carry out their



respective roles to develop and implement the best practices of academics and skill values in the institution to ensure a holistic development of the students.

Our college provides scholarship to students who excel in academics. These scholarships are awarded every year to students irrespective of their communal, socioeconomic background. Dr C T Eapen Memorial scholarship is provided to economical backward students.

Education is a vital factor in the process of tolerance and harmony. Through education, a child is moulded to suit the requirements of the society and thus becomes its effective, contributing member. But for education to embattle disharmony, one very important aspect has to be taken into consideration is that, education should be universal to achieve the goal of social harmony. Our college thus works towards bringing up this vital task of providing an inclusive environment, harmony in various spheres like cultural, regional, linguistic and communal socioeconomic in our campus.

File Description	Document
Link for supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	<a href="#">View Document</a>

#### **7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).**

##### **Response:**

##### **Right to vote**

Our institution encourages students to exercise their right to vote. Young learners have the power to make a significant change in shaping the country's future through voting. Recent studies reveal that the students who are aware of the socio political scenario in the country are more likely to cast their vote. APJ Abdul Kalam Technological University has introduced a new course 'Indian Constitution' in the 2019 scheme. This course aims to impart constitutional knowledge and legal literacy to the students.

India being a democratic country is based on elections and voting systems. One of the most critical ways that individuals can influence government decision making is through voting. Therefore, a citizen should be aware about the value of the right to vote. Vote can be defined as formal expression by a citizen in the country for opting candidates. 'MY VOTE MY RIGHT' was a program conducted on 14th of August 2019. It was done to create awareness among the students about the right to vote. About 85 students attended the program which was inaugurated by our principal.

##### **Passport Seva Programme**

For students who aspire to travel across the globe for higher studies, research and various career opportunities, the passport is an essential travel document and identity proof. The Ministry of External Affairs is conducting campaigns among students for uplifting the youth of India and thereby developing the national economy. The Passport Seva Programme (PSP) by the Ministry of External Affairs has been



one of the flagship technology implementations in the history of Indian citizen services. It deals with issue of travel documents, administering the passport related rules and manages the passport services across the country.

The program helped in transforming passport service delivery in India. PSP has been established in service delivery by developing best of technology with focus approached towards service orientation and transparency. Due to the impact of PSP on public services, the Government of India honored their contributions with several awards. A Passport Seva Project camp was organized by the college on 11th October 2019 to create awareness about passport among students and to help them apply for passport in a more simple and convenient way. During the Camp, Provision Was Given For On-Campus Submission Of Passport Applications.

### **Citizenship rights and responsibilities**

The success of democracy lies in the hands of citizens, who take responsibility for themselves and their community, for the well being of the country. Awareness about the citizenship rights and the responsibilities enables them to raise their voice against discrimination, injustice and corruption. It creates active citizens who can in the democratic process. **SWEEP** was a program organized by our college on 8th November 2019 to create awareness about the citizenship rights and responsibilities which was inaugurated by the principal. A talk was delivered on the topic 'The fundamental rights and duties' by Advocate Sudhikumar, Notary, Kollam.

File Description	Document
Link for details of activities that inculcate values necessary to render students in to responsible citizens	<a href="#">View Document</a>

**7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.**

- 1. The Code of Conduct is displayed on the website**
- 2. There is a committee to monitor adherence to the Code of Conduct**
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
- 4. Annual awareness programmes on Code of Conduct are organized**

**E. None of the above**

**D. 1 of the above**

**C. 2 of the above**

**B. 3 of the above**

**Response:** B. 3 of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting number of programmes organized reports on the various programs etc in support of the claims	<a href="#">View Document</a>
Code of ethics policy document	<a href="#">View Document</a>
Any other relevant information	<a href="#">View Document</a>

### 7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

**Response:**

The institution organizes commemorative days, events and festivals every year. It shows the honour and respect to various great Indian personalities. It helps the students and staffs get to know the importance of various days of national importance.

- **A P J Abul Kalam Remembrance Day** is celebrated annually on July 27 as a tribute to the great scientist and former President of India, Dr. A P J Abul Kalam. On July 27th, campus cleaning activities and blood donation camps were arranged at the college by the NSS student volunteers.
- **Teachers Day** celebration is organized by the students on 5th September as a remembrance to **Dr. Sarvepalli Radhakrishnan**. A meeting is held, where students and teachers interact about importance of student teacher relationship, and also their experiences in campus. The function ends with a cake cutting ceremony.
- **Gandhi Jayanthi** is celebrated every year on October 2nd to mark the occasion of the birthday of Mahatma Gandhi, the 'Father of the Nation'. The day starts with 'plogging' run. The volunteers run in and around the college and collect as much as plastic wastes and clean the college premises. The collected waste is handed over to the Haritha Keralam officials. A debate competition is also conducted.
- **NSS Day** is organized by the NSS Unit of the college on 24th September with a series of social activities. The celebration includes a rally and cleaning of college campus premises.
- **Children's Day** was celebrated on November 14th, outside the campus, with the kids of Manovikas, a school for the differently abled students. Various events were conducted for them by the NSS student volunteers. The kids enjoyed the events and participated with enthusiasm.
- **International Women's Day** was organized by the students on March 8th in the college campus. Talks and debates are arranged on topics such as Gender sensitisation and Women empowerment.
- On the **World Heart Day**, NSS team of the college has participated in 'KOOTTAYOTTAM' organized by N S Hospital on world heart day. District Collector Sri. Abdul Nasar IAS was the chief guest. After the run, the volunteers also participated in various other events hosted by the hospital.
- **Independence Day** is celebrated every year on August 15th as a national festival commemorating the nation's independence. The event is initiated by hoisting the national flag and an Independence Day message by the chief guest. A freedom quiz competition is also held. The students also volunteered for cleaning the campus and the adjoining Sasthamcotta lake shore.

- **Republic Day** on 26th January honours the day on which the Constitution of India came into effect. On that day a meeting is held, with flag hoisting followed by a speech by the chief guest.

File Description	Document
Link for Annual report of the celebrations and commemorative events for the last five years	<a href="#">View Document</a>
Link for Geotagged photographs of some of the events	<a href="#">View Document</a>

## 7.2 Best Practices

### 7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

#### Response:

#### 1. Title of the practice: TECHNICAL CONSULTANCY FOR RURAL HOUSING PROJECTS (PMAY-G & LIFE SCHEME)

#### Objectives of the Practice:

- To provide technical support for rural housing projects.
- To provide free of cost plan and estimate for the projects.
- Monitoring the whole work as per the PMAY-G rules and regulations
- Conducting technical as well as general awareness class for the PMAY beneficiaries.
- To ensure the timely completion of work without compromising quality of work.
- To conduct work related material testing and inspection.
- To provide practical exposure to civil engineering students by consultancy work.

**The Context:** Pradhan Mantri Gramin Awas Yojana (PMGAY) is a social welfare flagship Programme, introduced by the Government of India to provide housing for the rural poor in India. A similar scheme for urban poor was launched in 2015 as 'Housing for All by 2022'. In rural areas there is a huge demand for affordable houses. The broad purpose of the scheme is to provide financial assistance to some of the weakest sections of society to upgrade or construct a house of reliable quality. In reality, the PMAY-G beneficiaries don't complete their homes within the cost or within the stipulated time. The final result of the house construction becomes incomplete or partially complete. In order to avoid such situations, an effective and proper planning must be required; the rural housing scheme will help achieve housing for all by 2022 in rural areas across the country.

**The practice:** This project involves the study of cost effective construction techniques in residential projects in rural sectors of India, especially in Kerala state. The government of India and government of Kerala state launched many schemes to provide financial assistance to some of the weakest sections of society to upgrade or construct a house. The government gives 2 to 3 lakhs for the beneficiaries as a financial support; each house must have an area of 350 to 700 sq. ft. and the work must be completed

within 3 months. The successful completion of projects is achieved through various processes such as collecting data from the selected jurisdiction, site inspection, preparation of cost effective plans, comparison of cost effective building materials and techniques, inventory of cost effective building materials and testing, preparation of low cost house models, interviews with the PMAY-G beneficiaries, discussion with the concerned legal authorities, review of case studies and relevant provisions as per PMAY-G requirements.

**Evidence of success:** The construction of more than 154 houses in Sasthamcotta, Chavara and Oachira block panchayaths were completed within the stipulated time and cost. All PMAY-G beneficiaries were able to understand the cost effective methods and ensure their fund utilization is perfect way. The undergraduate students were exposed to field practices and technical consultancy.

### **Problems encountered**

- Some selected areas were very difficult to access due to lack of road network and undulated land.
- The government allotted fund is not properly utilized by some PMAY-G beneficiaries.

### **Resources required**

- Faculty members and engineering students for conducting site visits and lab tests. Centralized computer aided drafting room (CAD LAB) for the preparation of plans and estimates.
- Required Licensed Civil Engineer categorized as ENGINEER (A Class) approved by the Government of Kerala or Certified civil engineer for the consultation work.

**Future plans:** More participation in rural construction works such as cost effective land developments, innovative and sustainable building materials inventory etc.

## **2. Title of the practice: ON-THE-JOB TRAINING PROGRAMME (OJT) FOR VOCATIONAL SCHOOL STUDENTS**

### **Objectives of the Practice:**

- To provide the students an overview of different engineering disciplines based on their requirement.
- To give the students demonstrations of the use and properties of various building materials and explain the building construction aspects.
- To give the students an idea about different material testing methods.
- To provide training in fundamentals of computer aided drafting and quantity surveying.
- To provide training in modern survey instruments like total station & EDM.

**The context:** Integration of knowledge and skills take place in the schools during the transaction of the vocational courses. However it needs to be augmented through On-the-job Training (OJT) and project work. In order to get practical experience, the students are taken to an engineering service centre/institution or manufacturing centre or production unit to work in a real life problem under the guidance of a practicing engineer or faculty or graduate students. There must be a provision for On-the-job Training (OJT) for certain number of hours for every vocational course. The students may be evaluated jointly by the teacher and the expert. Students are to be given project work to be done individually or in small groups. It will help them consolidate and apply the knowledge they have gained.

**The practice:** The head of the school requests our institution to conduct training for their students. A batch of 20 to 30 students is sent for training from the school. Our Principal assigns a faculty member as the coordinator for the OJT. The coordinator prepares the schedule with duration of 10 to 12 days for the training program. The batch of school students will be accompanied by teachers from their school. The students will be taken to every lab for demonstration of testing methods. They are also given lectures on technical topics in their curriculum. Certificates are issued to students who completed the training successfully.

Our faculty members and engineering students are actively participating in the On-the-job training programme for vocational school students.

**Evidence of success:** Since 2016 onwards, every year we are providing excellent training support for more than 7 different vocational schools. A total of 400 students have successfully completed their OJT at our institution.

### **Resources required**

For the successful completion of one batch of OJT, 3 Faculty members and 2 technical staffs and 10 student coordinators from concerned departments are required. The following labs were utilized for the demonstrations as part of OJT.

1. Survey lab (contour mapping, total station, theodolite survey, cross sectioning etc.)
2. Quantity surveying and estimation
3. CAD lab & concrete lab
4. Strength of materials lab
5. Geo technical lab
6. Environmental lab
7. Transportation lab
8. Plumbing and sanitary fittings
9. Rain water harvesting and drip irrigation
10. Scheduling techniques (CPM and PERT)
11. Electrical machines lab
12. Circuits lab
13. Digital lab

**Future plans:** Involve in providing more training support for the vocational schools. Provide modern

software learning support to the students and enhance their skill and knowledge.

File Description	Document
Link for Best practices in the Institutional web site	<a href="#">View Document</a>
Link for any other relevant information	<a href="#">View Document</a>

### 7.3 Institutional Distinctiveness

#### 7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

##### Response:

Our institution is named after its founder, the late H H Moran Mar Baselios Marthoma Mathews II, and managed by Dr. C T Eapen Trust under Malankara Orthodox Syrian Church. The institution started functioning in 2002 with the monumental objective of promoting academic excellence and competence in students, especially in the fast-growing global domain of Engineering and Technology. The institution is affiliated to the Kerala Technological University, and offers 6 AICTE-approved UG courses and 1 PG course in Computer science.

##### Vision of the institution:

To become an icon of technical education that creates responsible professionals with social commitment.

##### VALUE BASED EDUCATION

Our college provides value based education to students. It instills educational and cultural values among students and aims at achieving multi-faceted development of a human being namely intellectual, physical, spiritual and ethical development. Imbibing the qualities of good conduct, self-confidence and high values would help students earn a significant place in society. The curriculum provides a means to implement values in the form of courses like “Life Skills” which focus on critical thinking on particular problems, handling engineering ethics and human values, team work, communication skills which provides the base for the inculcation of values.

The newcomers in the first year degree classes are given bridge courses and orientation classes which help them to get accustomed to the engineering education system. The first year students are taught basic engineering subjects and science subjects. The students are subjected to continuous evaluation through assignments, class tests, internal tests, viva for labs etc. The slow learners and advanced learners are identified in the process of evaluation and appropriate measures are taken. Remedial classes and tutorial sessions are scheduled for improving the performance of students. The performance of students are monitored and reported to the parents by their mentors. In the higher semesters, students undertake core subjects along with, seminar, comprehensive viva, design project and main project. Majority of the final year projects are designed and developed to serve the needs of society. The projects are supervised by the

faculty, from the initial design to the final stage, and are accomplished in the form of a utility. In order to bridge the financial gap among students the college management provides scholarship every year to economical backward students who excel in academics.

The NSS unit at our college proposes various activities like the relief and rescue operations for flood relief measures. About 100 NSS volunteers from the college were fully involved in the relief activities. The NSS volunteers sanitized the affected area, preparing food packets for the flood victims, running common kitchen and distributing medicines. The volunteers distributed food packets to the affected people at various places and were also involved in rescue operations. They collected items of daily uses like dry ration, clothes, soaps, sanitary napkins, medicines of regular use, milk powder, bleaching powder, hand wash, sanitizers etc. This aroused a healthy social awareness and instilled a patriotic and national feeling in the minds of the students.

Value based extracurricular activities are initiated by all departments of the college during the technical fest conducted every year. Some of the attractions in the previous years include the paper bridge, exhibitions of Indian heritage and culture, mud house, collections of old utensils used by ancestors, old currency etc. Hence the students are trained in the art of living in total harmony with the environment. Activities like prayer, meditation and yoga are arranged to help the development of spirituality in the students. Prayer meetings are conducted on every Friday and it is attended by students of all religion. The prayer meetings focus on developing the overall character of individuals and inculcate qualities of flexibility and adaptation to changing patterns of life.

At BMCE we have an entrepreneur cell which organizes various activities like seminars and workshops. It focuses on social skill development which is also needed to be a good entrepreneur. Overall, these make up the qualities required for an entrepreneur to function. Social skills include relationship building, hiring and talent sourcing and team strategy formulation, empathy or having high emotional intelligence. A good entrepreneur should know the strengths and weaknesses of every employee who works under him. Keeping a workplace light and happy is essential. Empathy is one of the most important characteristics of an entrepreneur. Without empathy, an entrepreneur cannot reach the hearts of employees nor the success he desires.

Moral values should go hand in hand with discipline. Moral values give meaning and purpose to life. Positive moral values are important because they create an overall feeling of peace and joy. Discipline is an essential part of our life. Without discipline in life we cannot work smoothly. Discipline teaches us to be systematic towards achieving our goal in life. The discipline committee of our college strives hard to achieve this goal, to ensure calm and peaceful academic atmosphere in the campus, to avoid physical confrontation among students, to conduct enquiries on report of undisciplined activities among students, to initiate model actions against students involved in undisciplined activities and to initiate steps to reduce violence and confrontation in future.

Today's youth are confused because of the bombarding of new technological devices, information explosion and violent news by the press & media. To inculcate the value system in their confused minds and make them value-oriented-powerful leaders, our institution takes the initiative to impart value based education to this new generation. Appreciation of necessary educational implications in teaching learning strategies is given to them in the form of awards. Thus, our institution strives to have a pleasing, cheerful disposition capable of inspiring students to pursue values, morals, ethics and excellence.

<b>File Description</b>	<b>Document</b>
Link for appropriate web in the Institutional website	<a href="#">View Document</a>

NAAC



## 5. CONCLUSION

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### Additional Information :

- **The institution possess an effective Career Guidance and Placement Unit, Entrepreneurship Development cell and BMC Technologies, BMC-Start Up Boot Camp, IQAC, Library, Centre for continuing education (M.Tech) and hostels for boys and girls.**
- **This green campus is located in the picturesquely beautiful Lake side. The serene atmosphere deepens the concentration power.**
- **Two NSS units are effectively functioning here.**
- **The Department of Physical Education promotes fitness and wellness, teamwork and discipline, sportsman spirit, leadership and integrity.**
- **BMCE has organized four International Conferences.**

### Concluding Remarks :

With a humble beginning of the institution in 2002, it has reached substantially to 6 UG programmes and 1 PG programme. The highlights of the institution are organizing International Conferences and seminars. In its pursuit of excellence, BMCE students secured topmost ranks in various university examinations conducted by KTU. BMCE also aims to transform itself into one of the topmost engineering colleges in the self financing sector in Kerala. The institution was bestowed with ISO 9001: 2015 certification issued by Ministry of Electronics and Information Technology, Government of India.